SEGA
ARCHIVES

ROAD RASH

The Revenge of
SHINOBI

THE ULTIMATE COLLECTOR'S GUIDE TO CLASSIC SEGA

Welcome to

SEGA

ARCHIVES

Since its origins as Service Games in the 1940s, Sega has been one of the most influential players in gaming history. From arcades filled with sit-down cabs, market-dominating consoles, an iconic mascot in Sonic the Hedgehog and everything in-between, Sega has certainly had its ups and downs. Sega brought so many new things to the gaming world, including downloadable games way back in 1994 and a motion sensing controller called the Sega Activator. The Mega Drive, know as the Genesis in North America, sold a staggering 30 million units. But Sega's hopes and dreams came crashing down around its ears with the Dreamcast's disappointing launch in 1998. It marked the company's final foray into home consoles and ushered in the era of third-party software development for other gaming platforms.

With Sega Archives you can relive Sega's colourful history, from early coin-op capers and the abandoning of the Master System's first mascot, Alex Kidd, to the gamble and subsequent failure of the Mega-CD and Mega Drive 32X. We've scoured the **Retro Gamer** archives to bring you amazingly in-depth articles on some of Sega's biggest games and franchises, as well as looking at the home consoles. It's the perfect way to celebrate Sega's timeless achievements.

In association with **retro GAMER** magazine

SEGA ARCHIVES

Part of the

retro* GAMER

bookazine series

ip

IMAGINE
PUBLISHING

Contents

42

22

30

36

50

80

68

102

152

158

174

THE HISTORY OF

SEGA

Scream it out loud: Sega has been one of the most influential players gaming has ever seen. But, as David Crookes shows, it has certainly had its ups and downs…

In the immediate years following the defeat of Japan in the World War II, General Douglas MacArthur oversaw widespread political, economic, military and social reforms during the United States' occupation of the former empire. The country was still reeling from the devastation of the atomic bombs dropped on Hiroshima and Nagasaki, but during its rebuilding a sense of opportunity began to arise.

David Rosen, a United States Air Force officer, stationed in Japan during the Korean War, had spotted the country's potential. He had noted how Japanese artists produced impressive painted portraits based on photographs and, on leaving for the United States, he grew a business sending American images across the Pacific. When he returned to Japan he saw the rising need for ID photos and so he undercut Japanese photographers by importing fast-processing photo booths. His business succeeded for years.

But he wasn't the only active US businessman in Japan. In 1945, Irving Bromberg and his son, Marty Bromley, formed a company called Service Games in America which distributed coin-op machines to various US military bases. In 1951, laws restricting their transportation were put in place which meant there was an abundance of machines lying unused, so Marty began exporting them to Japan (later shipping machines to the UK, too, starting with the Sega Bell one-armed bandit).

David also wanted to ship machines from the US to Japan. He spent a year negotiating with the Japanese authorities before being allowed to import $100,000 worth of machines. Sourcing them from Chicago, they tended to involve shooting and David operated more than 1,000 gun corners, with *Shoot The Bear* being a typical offering.

Rosen Enterprises and Service Games grew fast, opening arcade centres and bowling alleys. But as ▶

SEGA KEY PLAYERS

David Rosen
The founder of Rosen Enterprises merged his company with Service Games in 1965, becoming CEO of what became known as Sega Enterprises. He stayed with the company in various roles until his retirement in 1996.

Masami Ishikawa
Ishikawa joined Sega's amusement machine division in 1979 and became leader of home console R&D division, Away 27. He worked on producing the SG-1000, Master System and Mega Drive before returning to arcade.

Hayao Nakayama
Named as the executive producer on a host of Sonic games, Nakayama was CEO of Sega from 1984 to 1999. He was a firm believer in Sega's need to control its own hardware platform.

Michael Katz
Having worked for Lever Brothers, Mattel, Coleco, Epyx and Atari, Michael Katz became president of Sega Of America in 1989 a month after the launch of the Mega Drive and stayed on for a couple of years.

Tom Kalinske
Widely seen as the man who turned around Sega's console hardware fortunes, the former Mattel and Matchbox CEO was Sega Of America's innovative president and CEO from 1990 to 1996. He sanctioned the ad attacks on Nintendo.

Yuji Naka
Having created *Girl's Garden* for the SG-1000, Naka went on to code *Sonic The Hedgehog* for the Mega Drive. He became producer at Sega Enterprises in Japan, working on Saturn and Dreamcast games.

Yu Suzuki
The long-time head of Sega's famed AM2 development division directed many of the company's most successful games, with the likes of *Hang-On*, *Space Harrier*, *Virtua Racing* and *Shenmue* showcasing the developer's technical advances.

Hidekazu Yukawa
Dubbed 'Mr. Sega', Yukawa became Sega's popular senior managing director during the era of the Dreamcast. He also appeared in numerous offbeat adverts in Japan promoting the system and made in-game cameos.

▶ competition grew and Service Games fell under heavy scrutiny by US and Japanese authorities, the two joined forces. Sega Enterprises was formed in 1965 and David became president.

PERISCOPE AND BEYOND
Sega's first original game, *Periscope*, was developed in 1966 and it cost 30 yen or 25 cents to play. The machine was some ten feet deep and six feet wide, with a periscope controller, cardboard cut-outs of ships which moved horizontally and lights which represented the player's torpedoes as they sped towards their target. It was also the first game Sega had exported from Japan rather than imported and it began doing so well, Gulf And Western snapped it up in 1969.

David Rosen remained at the company's helm and Sega decided to take a piece of the-then burgeoning videogame market. It published Gremlin Industries' monochromatic arcade maze game, *Blockade* in 1976 before merging its operations with Gremlin three years later. Popular titles such as the innovative dot-eating car maze game, *Head On* in 1979, were created under the Gremlin/Sega or Sega/Gremlin branding label. Subsequent games, such as *Turbo* in 1981 and *Zaxxon* in 1982, saw Sega on a roll.

Sega also entered the home console market with the 16-colour, 8-bit Zilog Z80-based SG-1000 on 15

» Sega found great success with its Eighties arcade games and that coin-op heritage continues to this day.

July 1983 (the same day as Nintendo's Famicom), throwing in a home computer – the SC-3000 – for good measure (basically adding a keyboard and hardware expansion support to the console). But the downturn in sales and expense of the arcades worried David. He tried to persuade manufacturers and distributors to sell conversion kits rather than entire, completed cabinets but he was roundly mocked. The games industry crashed and Gulf And Western wanted out.

In 1984, Sega's US assets were sold to Bally/Midway. David was offered the Japanese division for $38 million, promoting him and Hayao Nakayama – who had run a distribution company bought by Sega in 1979 – to seek financial backing. CSK Holdings, led by Isao Okawa, was among the concerns, stepping forward with the cash. Nakayama became CEO of the 'new' Sega while David worked from Los Angeles.

ARCADES AND CONSOLES
In 1984, the SG-1000 was discontinued in favour of the SG-1000 II which came with detachable controllers and the ability to play Sega Card games. It only lasted around 15 months but it helped to lay the groundwork for the years to come. Notably, a young games designer called Yuji Naka created a game called *Girl's Garden* alongside Hiroshi Kawaguchi, while Yu Suzuki developed the 2D boxing game *Champion Boxing* and the groundbreaking motion-controlled *Hang-On* for the arcades. It had players sitting on a large motorbike fitted with a screen.

The arcades were where the company continued to make its mark. The introduction of the System 1 and System 2 boards saw the production of games such as *Flicky*, *Pitfall II: Lost Caverns* and *Wonder Boy*. The System 16 arcade board underpinned some 40 games including *Shinobi*, *Altered Beast* and *Golden Axe*. Yet Sega wasn't about to give up on home consoles. It released the SG-1000 Mark III in Japan in October 1985. It also decided to take this machine to the USA and Europe the following year, renaming it the Master

> **" [Fans of the Master System] were very vocal because it wasn't fashionable and they had to defend it "**
>
> Al Nilsen

System. Distribution in the UK – where the console cost £95.95 – was handled by publisher Mastertronic.

The new console had two slots – one for top-loaded cartridges and another for games of up to 256k stored on cards – and there were lots of original games and arcade conversions available. A pack included a lightgun, control pads and a dual-cartridge that included *Hang-On* and *Safari Hunt*. There were innovations, too: in 1987, liquid crystal 3D glasses were unveiled which hooked into the card port and used a shuttering effect to rapidly close the left and right lens. It flopped, but it was certainly ahead of its time.

As the decade wore on, games such as *Out Run* – based on Sega's smash-hit arcade racer of 1986 – rubbed shoulders with *Choplifter*, *Space Harrier* and *Alex Kidd In Miracle World*, the latter being Sega's answer at the time to the Nintendo mascot, Mario. Many Sega games also appeared on home computers thanks to deals with U.S. Gold, Activision and Elite Systems. Yet Sega had its work cut out in the console market. Nintendo had snapped up pretty much every developer worth its salt and it had ordered third-party creators working on the NES to give the Master System a wide berth.

Only in parts of Europe, to a degree, and Brazil – where the machine thrived to such an extent that it still sells today – did Sega halt Nintendo's runaway success. Elsewhere, Nintendo took a whopping 90 per cent share of the market. Yet there were reasons to be cheerful. Al Nilsen, who became Sega Of America's marketing

» *Hang-On* was a faithful conversion, although it didn't come with a motorbike…

director, says those who bought the Master System were incredibly loyal. "They were very vocal because it wasn't fashionable and they had to defend it," he tells us. "It was interesting going into a focus group of people who owned a NES and a Master System. Without them even talking about the consoles, it was possible to tell who owned which."

In a bid to turn things around, Sega farmed out the US distribution rights for the Master System to Tonka in the hope of reinvigorating the console in America. It didn't. Sega then sought to put more of its effort into Europe, where the bulk of its consumer revenue was coming from, thanks to the console market being more open due to the popularity of home computers. Eventually, it decided to make one last dive into market with a new console – but not without testing the water first.

"David Rosen had come to see me when I was at Atari in 1988," the then-president of its videogame division Michael Katz tells us. "I'd known him from my days at Mattel and Coleco and he said Sega had decided it would prefer not to introduce another hardware console in the US and that it would rather work on software only. He wanted to know if Atari would be interested in licensing a new console it had been working on.

"I loved the idea because it would have meant Atari having the first 16-bit console. Jack Tramiel [who had bought the consumer division of Atari from Warner Communications in 1984] initially said yes. But negotiations broke down over money. Jack wasn't a gaming guy." Sega decided it would control the console itself and it became known as the Mega Drive.

THE GLORY YEARS

For legal reasons, the console had to be renamed in the US. Five different packages were put forward to Al, one called Cyclone, "And one with a fox on the box," he says. But it was Atari's original name for the console, Genesis, that stood out and so that became the US name for the Mega Drive. ▶

» A small selection of Sega games, every one a genuine classic.

IN THE KNOW

■ **The name Sega is derived from Service Games – the company which merged with Rosen Enterprises in 1965 to form Sega Enterprises.**

■ It began making its own arcade games in the late Sixties and its electromechanical titles included *Periscope* (designed by David Rosen), *Duck Hunt*, *Grand Prix* and *Missile*.

■ **The *Killer Shark* cabinet from 1972 appeared in the 1975 movie, *Jaws*.**

■ Until the System 1 platform was released in 1983, Sega experimented with various systems from discrete logic to LaserDisc.

■ **Sega's debut console, the SG-1000 debuted the home version of *Flicky* and had 69 standard cartridge releases.**

■ More Master Systems were sold in Brazil than anywhere else and it still sells 150,000 per year there today.

■ **Nintendo only rescinded its exclusivity requirements in 1990, allowing many third-party developers to work with Sega, too.**

■ Japan's Mega Drive had nifty online capabilities.

■ **Sega Of Europe was formed in 1991.**

■ Sega Of America had 35 staff in 1989 and gross sales of $813 million – by 1993 it had 700 staff and $3.6 billion gross sales.

■ **In 1993, it had 45 per cent of the US videogame market, compared to Nintendo's 44 per cent.**

■ A Sega VR headset was developed for the arcades but Mega Drive and Saturn versions were scrapped.

■ **Sega had plans to be bigger than Disney and wanted networked Sega theme parks.**

■ Before making the PlayStation, Sony – which had been rebuffed by Nintendo – approached Sega but its board of directors vetoed working together.

■ **When the Dreamcast was discontinued, it ended 18 years of home hardware production for Sega.**

GOOD IDEA

Buyout
■ The company snapped up a distribution company run by 'soon-to-be-Sega-president' Hayao Nakayama in 1979.

SG-1000
■ Launching the SG-1000 in Japan created the foundations for Sega's home console assault.

Arcades
■ Investing heavily in the arcade division where it pioneered and created scores of franchises.

Sports
■ Deciding to concentrate on sports and personality-led games, giving Mega Drive titles recognisability, exclusivity and an 'edge'.

Sonic
■ Dropping *Altered Beast* for *Sonic The Hedgehog* as the Mega Drive's pack-in title.
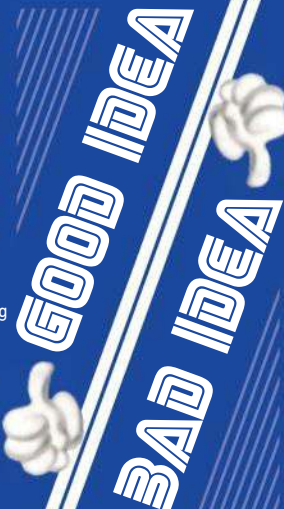
Price
■ Slashing the price of the Mega Drive in the US from $189 to $149, kickstarting sales.

Competitiveness
■ Riding roughshod over advertising conventions and upsetting the Japanese board by gunning for Nintendo.

EA
■ Agreeing to partner with Electronic Arts on the Mega Drive, despite handing the publisher favourable terms.

BAD IDEA

Tonka
■ Allowing Tonka to market the Master System in the US when the company lacked the required experience in videogaming.

32X
■ Creating the stopgap 32X, yet making it known to gamers that the Saturn was on its way.

Mega-CD
■ Shipping the Mega-CD add-on for the Mega Drive while failing to have a decent pack-in title.

Dreamcast
■ Failing to blaze a trail ahead of PlayStation 2 by eschewing DVD capability in favour of its own proprietary GD-ROM format.

Sony
■ Turning down Sony's assistance on a CD-based machine – 'The stupidest decision ever made in the history of business", says Tom Kalinske.

Saturn
■ Rushing to launch the Saturn when there were just six launch games and not enough supplies.

Overreaching
■ Marketing the Mega Drive, add-ons, Game Gear, Master System, Nomad, TeraDrive and Saturn at once was too much.

Nomad
■ Launching the Nomad handheld based on the Genesis six years into the Mega Drive's life.

But those issues aside, it was what was inside that mattered: notably a 16-bit Motorola 68000 processing chip twice the speed of the NES' MOS Technologies 6502, an ability to display 64 on-screen colours from a palette of 512 and a separate sound processor.

Before the new console could enjoy its success, though, there was the little matter of another competitor: NEC's TurboGrafx-16. "We knew if we didn't knock NEC out of the marketplace we wouldn't have a business in 1990 and 1991," recalls Al. "I remember one retailer telling me, 'NEC have these beautiful videos and brochures and they are going to eat your lunch, and you're going to fail, and I'm going to return every one of your machines on December 26.' We just cared that it was going to be in the stores."

Shortly after, David approached Michael again, who had left Atari, this time to offer the job of president of Sega Of America. Michael knew it was a daunting challenge: he would have to seek warehouses and build solid development, marketing, sales and operational divisions. "But I've always liked launching new products and I saw it as a good opportunity," he tells us. "The only thing we lacked was a library of exciting games."

Up to that point, successful console games had tended to be arcade conversions. "But Nintendo had strong relationships with Japanese companies such as Namco and Konami," Michael remembers. "That had worked against Atari and Mattel and we were facing the same problem at Sega. It occurred to me that we could get sports or entertainment personalities on an exclusive basis instead."

One company starting to make its mark with sports games was Electronic Arts, but its founder, Trip Hawkins, didn't like the way that console manufacturers operated back then. "Can you imagine how it felt when Nintendo came along and said, 'Here's the deal – you have to give us a third of your revenue, make only five games a year, let us approve and manufacture them and let us put them on a boat that will take a month to reach your country, after which God help you if you can sell these things,'" Trip tells us. "It was not only shock and awe, it was disruptive."

As a result of those restrictions, EA didn't make games on the NES, yet the industry was moving towards consoles and

» The *Golden Axe* series proved to be popular on Mega Drive, with the console getting two exclusive sequels.

forcing Trip's hand. "I heard Sega was bringing out a 16-bit console," Trip remembers. "And I thought, 'How can we help Sega, but have freedom?'" His plan was to buy a Mega Drive when it launched in Japan in 1988 and reverse-engineer it with a view to going it alone. To fund any possible lawsuits and the cartridge manufacturing costs, EA went public.

"We didn't know if [the Mega Drive] had patents like Nintendo's but we knew it was coming to market fairly soon," Trip says. "When we got it, we placed [the console] in a clean room with no information or tools in it and tried to figure it out. Reverse engineering is a very dark, lonely and desperate journey and my biggest heroes in the games industry are the men who went into that room. It took them several months but lo and behold, they pulled it off."

Sega was unaware EA was doing this. It had tried to convince Trip to make Mega Drive games but each time, he would express concerns about the business model. "They would chuckle, leave and come back," he says. "But I was keeping them in a state of limbo." He planned to study the US version when it arrived in August 1989 to make sure it was the same as the Japanese console but in June that year he broke his silence.

"I realised it was time to tell Sega what we were doing and see if it was possible to be partners," he says. "I told them I didn't like the draconian business model but I liked the machine, and I pointed out, 'Look, I don't need your intellectual property – I reverse-

13%
MEGA DRIVE (SIX-BUTTON)

9%
SEGA SATURN
(WESTERN VERSION)

18%
DREAMCAST

43%
SEGA SATURN
(JAPANESE VERSION)

13%
MEGA
DRIVE

4%
MASTER
SYSTEM

BEST SEGA CONTROLLER

SEGA SATURN (JAPANESE VERSION)

There were two versions of the Sega Saturn controller, with the best having been introduced in 1994 in Japan. Light and solid, it was an evolution of the similar-looking Mega Drive's six-button pad, albeit with the addition of a couple of shoulder buttons. The D-pad was on the left, there was a Start button in the middle and the six buttons were to the right: A, B, C along the bottom and slightly smaller X, Y, Z buttons across the top. To cater for the hands of Western players, a larger version was created for the US and EU, but it proved to be less popular.

engineered it and I will go without a licence.' I said we'd fight them for years. They tried to huff and puff and blow our house down." In the end, a deal was made. Trip wanted to release 20 titles in the first year – "Sega was blown away by that," he laughs – and he wanted a $2 million licensing fee cap. It was a sticking point but he won.

"I realised I had a three-year lead on other publishers and that we could be strong in certain markets like sport," Hawkins says. "*John Madden Football* had already been around for a few years and the Mega Drive had two joysticks and a lot of power for a good sports experience." EA came in handy when Mediagenic looked to be failing to produce a game based on the American football quarterback Joe Montana, who had signed a $1.7 million, five-year deal with Sega. Michael called Trip who agreed to take on *Joe Montana Football*. "We were having to develop a library across five or six genres," Michael says. Things were falling into place.

The Mega Drive launched for $189 in 1989 in the US and £189.99 in the UK in 1990. Games included the pack-in *Altered Beast* as well as

Ghouls 'N Ghosts, *Super Thunder Blade*, *Tommy Lasorda Baseball*, *Alex Kidd In The Enchanted Castle* and *Space Harrier II*. Later, *Ghostbusters*, *Michael Jackson's Moonwalker*, *Rambo III*, *Pat Riley Basketball* and *Buster Douglas Knockout Boxing* were launched. The latter formed part of the advertising campaign, "Genesis Does What Nintendon't" – and that proved controversial.

"It was a competitive strategy," Michael says. "We had the power of the 16-bit system – better graphics, sound and action – and we had personalities as well as good sports games. That's what we hung our hat on and it was a successful battle cry." In the first six months, around 500,000 consoles had been sold. But Nakayama had a specific goal – 'Hyakamundai' or one million sales – and it was far from being reached.

Nakayama brought in Mattel's Tom Kalinske who eventually became president. "They didn't understand that you don't just snap your fingers with a new console with no software supporting it, going against a company with a 90 per cent share of the market," says Michael. After a brief period observing, Tom got stuck in. "I reduced the price to

▶ $149 and I removed *Altered Beast* as a bundled title so we could focus on Middle America – the game sounded like a devil," he says. It was time for a super-fast, blue, creature to step forward.

"When I first saw the blue guy with the spikes in Japan, it was like, 'We got it.' We knew we could go up against Mario with that," says Al. *Sonic The Hedgehog* became a vital component of the Mega Drive package and it had been developed by a talented team in Japan. "Sonic's project leads were Yuji Naka, the programmer and team leader, designer Hirokazu Yasuhara, artist Kunitake Aoki and musician Howard Drossin and there was a substantial support group around them," says Roger Hector, former Vice President of the Sega Technical Institute (STI). "They were hugely important and my role when I joined was to keep the path clear in front of the team and make sure the rest of the company was in sync."

The team had almost immediately been brought under the control of Mark Cerny who initially headed up the US-based STI. It made sense given the great strides being made by Sega Of America in popularising the Mega Drive. "I insisted on putting *Sonic* in with the hardware," says Tom. "I'm told the board in Japan thought it was crazy because it was the best title and nobody makes money on the sale of hardware. But it worked."

The console began being sold in K-Mart and Walmart and it was flying off the shelves. "Tom got the board of directors to say,

'Yes, yes, you can sell for $149 and pack-in *Sonic,*'" Al remembers. "They were the things we had been talking to Sega Of Japan about and it was falling on deaf ears." Sega was on the up.

Mega Drives were integrated within PCs made by IBM and Amstrad (the Sega TeraDrive and Mega PC); Tom Kalinske and Shibobu Toyoda, the vice president of licensing in Japan, attracted more third parties; Sega bought Virgin Mastertronic – which had the distribution rights for the Mega Drive in the UK, France and Germany to form Sega Europe; and *Mortal Kombat*, *Aladdin* and *Ecco The Dolphin* became hits.

For every Nintendo game sold, 1.4 Mega Drive titles were snapped up. "The entire [STI] team was super-talented and driven to make each game better than the last," Roger adds. "I enjoyed working with this kind of group. But I also enjoyed several other projects including *Comix Zone* because of its very original concept and talented team, and *Die Hard Arcade* because it brought me back to my coin-op roots."

The cash rolled in. "In 1992, our revenues were at least £500 million and by 1994, we were over a billion dollars in revenue so we grew very, very rapidly," says Tom. Nintendo had launched the SNES in Japan (1990), US (1991) and Europe (1992) but its dominance was broken. "We took Nintendo on in advertising and we made fun of them," he says.

Indeed it did. "Sega Of Japan was not too thrilled with 'Genesis Does What Nintendon't' because the Japanese don't believe in competitive advertising," says Al, whose marketing budget was $20 million – a fifth of Nintendo's. "But those four words established what we were trying

FRANCHISE STARTERS
Sega produced many revered titles

Out Run »10

Golden Axe »8

70

Sonic The Hedgehog

Jet Set Radio »3

Shenmue »2

Virtua Fighter

18

31
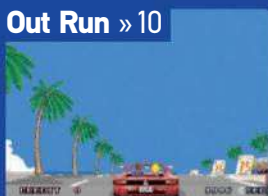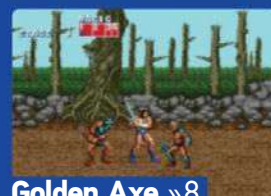
The Shining series
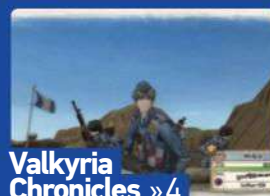
Valkyria Chronicles »4

to accomplish. Our audience were rebels and cutting edge and we weren't about saving princesses."

Ad agency Goodby, Berlin & Silverstein came up with the Sega Scream. "We were experimenting with really short commercials and we had this guy scream the word Sega," Jeff Goodby explains. "We didn't know how we would use it but it was funny and it sounded Japanese which was cool. We put it at the end of every commercial and we'd used the same voice in the mouth of a dog or have other people say it. The scream was about frustration, freedom and abandonment in the game world." Sega had found its voice.

DRASTIC DOWNFALL

The Mega Drive was successful, topping 31 million sales, with the Mega Drive II in 1993 bolstering its position while boasting a less expansive mainboard. The arcade division was also strong, with *Bonanza Bros.*, *Crack Down*, *Alien 3: The Gun*, *Jurassic Park*, *Virtua Fighter*, *Sega Rally Championship*, *Virtua Striker*, *Virtua Cop*, *Virtua Racing*, *Daytona USA*, making Sega a coin-op name to watch. There was an educational machine called Pico and *Sonic The Hedgehog* spawned a sequel, earmarked for a worldwide 'Sonic 2 Day' launch. The Sega Channel – a content delivery service provided via cable TV – had 250,000 subscribers.

But while Sega arcade centres opened worldwide with 1,200 in Japan and a flagship SegaWorld London launched at the Piccadilly Trocadero, not everything turned to gold. The Game Gear – launched in Japan in 1990 and the US and Europe in 1991 – flagged behind the Game Boy; a virtual reality helmet, originally planned

for the Mega Drive, only launched in the arcades; and the first full-body motion-sensing controller, Activator, for the game *Dragon Ball Z V.R.V.S.* was laughable. And yet, "We were changing the videogame market place from one that was for 6 to 12-year-olds to one that welcomed girls and teens, tweens, young adults and adults," says Al. "We established the modern-day games industry and we had a character with a 'Q score' [a measurement of familiarity] better than Micky Mouse in just one year."

Still, technology had to move on. In 1991, the Mega-CD (Sega CD in the US) add-on launched as an experiment for the future. "It was really hard to figure out how to put games on an optical disc, initially," Tom says. "Developers had to [master] a learning curve." But it was followed by the 32X which was an attempt to push the Mega Drive to 32-bit and yet felt pointless. "It had no software support and was ridiculously expensive," says Al. It sold 664,000 units. ▶

» *Crazy Taxi* started off in arcades but eventually moved to Dreamcast.

NOTABLE ADD-ONS

Master System 3D Glasses
■ **Sales** Negligible

Game Gear TV Tuner
■ **Sales** Unknown

Mega-CD
■ **Sales** 2.24 million

32X
■ **Sales** 665,000

Sega Channel adapter
■ **Sales** 250,000

12 Super Monkey Ball

Bayonetta »2

14 Shinobi

NiGHTS... »2

ToeJam and Earl »3
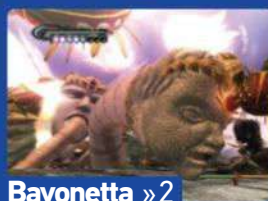
23 Phantasy Star

Panzer Dragoon »5

10 THINGS SEGA GAVE GAMING

Sonic The Hedgehog
■ Originally designed as a sharp-fanged, spike-collared, villainous and crude creature with an electric guitar, Sonic was softened on release but still retained his attitude. Sega had wanted to replace Alex Kidd as its poster child and asked various developers to come up with a Mario-beating mascot. The platformer's speed was jaw-dropping.

Pioneering coin-ops
■ Apart from introducing 25-cent play in the US, Sega's arcade games proved innovative. From the first racer to have a third-person rear view (*Turbo*) to the first FMV LaserDisc game, *Astron Belt*, to the first system to produce isometric graphics – *Zaxxon* – and high frame-rate, pseudo 3D sprite-scaling in *Hang On*.

Maturity
■ Former Sega marketing supremo Al Nilsen says that Nintendo had a firm hold on the 6 to 12-year-old market so, in response to this, Sega decided to shift the target audience for its games. "We were trying to get people who were no longer playing consoles to get back into gaming; the 13-year-olds who had put their consoles away," he says.

A competitive market
■ If Nintendo played *Monopoly* with other games companies a in the Eighties, it would have had all the properties, houses and hotels, leaving Sega with a couple of utilities and a train station. With 90 per cent dominance and third-party developers tied up, gaming needed competition. By 1993, Sega had 45 per cent of the US and 66 per cent of Europe.

▶ "Sega CD helped us prepare for the Sega Saturn," says Al. "It's why Sony initially came on board with us to figure what CD could do." The Saturn had been in development since 1992, under the supervision of Hideki Sato, Sega's director and deputy general manager of research and development, but it launched too soon. "The last thing we needed was confusing third parties with another platform," he adds.

Sega Of America wanted to push the Saturn back a year but Tom was told to go on stage at E3 in 1995 and tell the world that the console was actually being put on shelves at that very moment. "Frankly, truth be told, I didn't want to do it," laments Tom. The problem was a lack of hardware to supply all of the major retailers that wanted it. "I knew I was going to really annoy retailers that didn't understand it."

Then Sony dealt a blow that would be remembered for years to come. "Steve Race, who used to work for me at Sega, made the announcement for Sony that they were going to introduce the PlayStation at a far lower price than Saturn." The Saturn cost $399. Steve took to the platform and said, simply, '$299.' It was game over.

Still, Saturn sold 200,000 units in Japan within a week, thanks to the popularity of *Virtua Fighter* and the machine became home to Sega's top 3D games, but it was difficult to program and expensive to produce.

» Sega made and published several games in the *Sega Rally* series. The original remains the best mind.

> ❝ **Sega CD helped us prepare for the Sega Saturn. It's why Sony initially came on board with us to figure what CD could do** ❞
> Al Nilsen
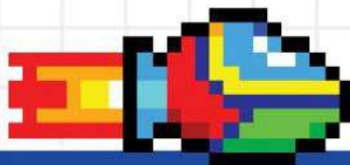
The company was truly the gift that kept giving

CD titles
■ Sure, the Mega CD was a flop and it didn't inspire confidence in Sega at the time but, it was still an innovation which attracted the attention of Sony (which used the knowledge it gained to create PlayStation) and enabled developers to experiment with optical discs. NEC's CD add-on beat it to the punch, but Sega's system went worldwide.

Downloadable games
■ Thanks to deals with telecommunication and cable companies, gamers were able to enjoy games on demand with the Sega Channel pay-to-play service on the Mega Drive. Starting in America in 1994, it rolled out to countries across the world before ending in July 1998 and showed the possibilities of digital media.

Motion sensing controllers
■ The Wii wasn't the first stab at using motion control in games. Sega had also looked at the technology. The full-body motion detecting controller, the Sega Activator, was an octagonal ring that sat on the floor; it also had a fishing rod motion controller and some cool *Samba De Amigo* maracas too.

Online console gaming
■ SegaNet offered online services for the Saturn in 1996 and it did so before Microsoft, Nintendo and Sony had considered doing the same. It offered the same service on the Dreamcast too, splashing out $100 million on the launch, allowing gamers to compete worldwide. It was called Dreamarena in Europe.

3D open worlds
■ It wasn't the first game to feature an open world but *Shenmue* on the Dreamcast was still a head-turner for any gamer, having pretty much started the 'open city' subgenre two years ahead of *Grand Theft Auto III* and proving to be yet another blistering Sega franchise. It allowed players incredible freedom to roam and explore its world.

Second screens
■ The Dreamcast Visual Memory Unit may have been scorned when it was released, but by throwing in a portable device with a console, it introduced the concept of 'second screen' gaming that, while still yet to prove its worth entirely, has been copied and built upon by its rivals since. Sony and Nintendo particularly took note of the idea.

Sega was left floundering, Tom left and COO Bernard Stolar quit Sony to replace him. He oversaw the release of games such as *NiGHTS into Dreams*, *Panzer Dragoon Saga* and *Guardian Heroes*, believing a handful of triple-A titles to be better than shovelware. But the PlayStation had done its damage. Sega had to come back with a new machine.

THIRD-PARTY ERA
Two different teams – White Belt in Japan and Black Belt in the US – worked in secret on separate prototypes of the new console. The former used the NEC/VideoLogic PowerVR2 chip while the latter based it around the Voodoo 2 graphics technology by 3dfx Interactive. The Japanese team won, pleasing Sega Japan's head of hardware development Hideki Sato, but it caused legal fallout involving the companies providing the chips.

On paper, the Dreamcast – originally known as Katana – looked great: the first 128-bit home console with online connectivity. It launched around the same time as the arcade NAOMI board which had identical specs and was seen running *The House Of The Dead 2* and *Dynamite '98* at the JAMMA Show in Toyko. Pundits were optimistic since talented third-party developers had signed up (Bizarre Creations made the Dreamcast exclusive *Metropolis Street Racer*) and one of the technical demos earmarked for E3 teased punters with an impressive portrait of Sonic.
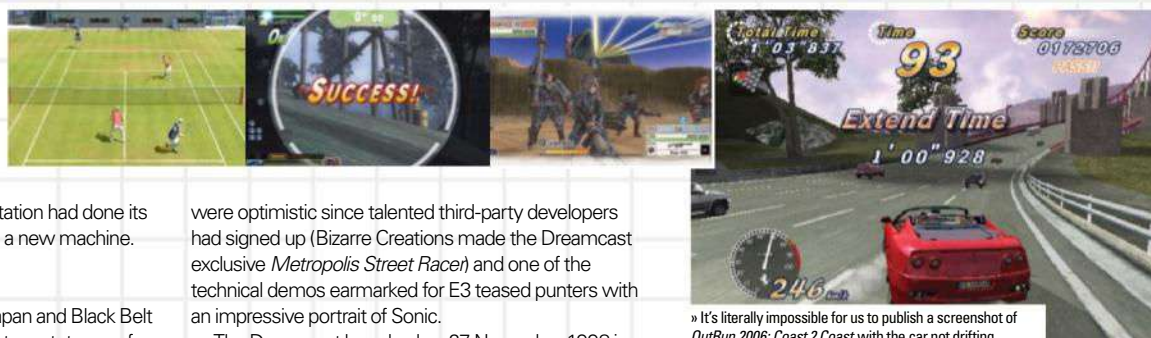
The Dreamcast launched on 27 November 1998 in Japan. It was a week late but it sold 150,000 units on the first day of retail. The US launch on 9 September 1999 was stunning – 500,000 sales in two weeks and 17 available games. Europe sold the same by Christmas. Those who bought it, *loved it*. The years brought *Crazy Taxi*, *Virtua Tennis*, *Street Fighter III*, *Resident Evil Code: Veronica*, *Soul Calibur* and *Shenmue*. Yet some developers were absent. EA wanted sports game exclusivity but Sega wanted its recent purchase, Visual Concepts, to make such titles too.

Then came the blows. Sales declined, Nakayama left and Sony released PlayStation 2, which history showed became the biggest selling console of all time. Sega had no choice but to pull the plug and it also decided to make the Dreamcast its last console. From that point, it would be a third-party developer for other company's consoles – a move the new CEO Isao Okawa – the long-time chairman of CSK – had wanted for some time. Its first game as a third-party developer was *ChuChu Rocket!* on the Game Boy Advance.

Sega then sought to stem its years of losses and looked to find a buyer. The pachinko manufacturer Sammy snapped up CSK's remaining shares in Sega in August 2003 and a new president, Hisao Oguchi, was appointed. The following year, Sega merged with Sammy in a deal worth $1.1 billion, turning the combined entertainment company into Japan's largest. A period of boardroom action followed: Visual Concepts was sold to Take Two in 2005 for $24 million, the same year Sega bought the UK developer Creative Assembly. Sega Racing Studio formed in 2005 (and closed in 2008); Sports Interactive was snapped up in 2006; and its hedgehog mascot was given a fresh lease of life in *Sonic And The Secret Rings* in 2007.

Sonic also ceased to be a fierce rival to Mario. The plumber and the spiky hedgehog appeared together in the *Olympic* series of games licensed to Sega from 2007. It has certainly been a time of rethinks. The declining arcade market saw Sega axe around half of its Japanese gaming centres and the business was restructured in 2012. But it experimented with web games and has proved successful on mobile. There is lots of life left.

No matter what happens in the future, Sega will never be forgotten. It retains millions of fans and it continues to entertain with new releases and lots of opportunities for nostalgia (cue low-price Mega Drives with dozens of games built-in). Fans support the older machines too: Dreamcast has seen recent titles by the likes of Hucast Games and GOAT Store and Alice Team. Even so there is still a sense of sadness that Sega doesn't continue to make consoles. "We fondly remember those amazing days because of what we created," recalls Al. And so, it has to be said, do we. ✳

» It's literally impossible for us to publish a screenshot of *OutRun 2006: Coast 2 Coast* with the car not drifting.

Year released: 1986 (US), 1987 (UK and Japan)

Original price: £99 (Core Pack)

Buy it now for: £15+

Associated magazines: Mean Machines, Computer+Video Games

Why the Master System was great: With a far brighter colour pallette than Nintendo's NES and some superb arcade conversions, the Master System proved to be a cracking purchase if you were a die-hard Sega fan

RETROINSPECTION
MASTER SYSTEM

SEGA MAY NOT COMPETE IN THE HOME-CONSOLE ARENA ANY MORE, BUT ITS MASTER SYSTEM ARGUABLY PLAYED A SIGNIFICANT ROLE IN INTRODUCING MANY GAMERS TO THE CONCEPT OF THE 'HOME ARCADE'. DAMIEN MCFERRAN TAKES A FURTIVE LOOK AT ONE OF SEGA'S FIRST FORAYS INTO THE DOMESTIC HARDWARE MARKET

The Sega Master System is something of an enigma. One of the most powerful home consoles of its time, the machine is barely worthy of a footnote when it comes to deconstructing the history of the American and Japanese gaming industries. It sank almost without trace in these two key territories, failing to make even a dent in the seemingly impregnable armour of Nintendo's NES (or Famicom). However, in other parts of the world – most notably Europe and South America – it was a tremendous success, winning hordes of fans and establishing Sega's reputation as a first-rate purveyor of arcade smash hits in the process.

Founded in 1940, Sega (an abbreviation of 'SErvice GAmes') initially gained renown for its unique brand of automated coin-operated arcade games. Having plenty of experience in the field of amusements, the company was perfectly poised to compete when 'true' arcade titles like *Pong* and *Space Invaders* started to appear. Thanks to games like *Future Spy* and *Zaxxon*, Sega soon garnered a reputation as something of an expert when it came to arcade thrills and spills.

As the Eighties began to unfold, the videogame industry seemed unstoppable. Encouraged by the sterling performance of its coin-op division, and the sheer amount of money American company Atari seemed to be making from the VCS/2600, Sega decided to enter the home entertainment arena. Released in 1983, the SG-1000 was Sega's first attempt at cracking the console market. However, it was not the triumph the company had hoped for. To make matters significantly worse Atari managed to successfully flush the US home videogame market down the toilet in the same year, causing the first worldwide videogame crash. Sega's assets were hit badly in the ensuing fallout, but salvation came from American David Rosen (who had previous ties with Sega) and Japanese businessman Hayao Nakayama. These two men stopped the firm from collapsing into the gaping hole created by Atari's poor management.

After a period of stabilisation, Sega was purchased in 1984 by Japanese corporation CSK and subtly re-christened 'Sega Enterprises'. Despite the abject failure of the SG-1000, plans were made for a successor in the shape of the updated SG-1000 'Mark II'. Sega, like fellow Japanese company Nintendo, knew that although the

INSTANT EXPERT

A clone of the SG-1000 Mark I was produced by Telegames that could also play ColecoVision software.

The Master System possessed a pair of 3D Glasses that simulated depth of vision by using a shutter system on the right and left lenses.

The Power Base converter allows you to play Master System games on a Mega Drive console, although it acts only as a 'pass through' device, as all the necessary hardware to run Master System software is already included inside the 16-bit machine.

The first SG-1000 did make it out of Japan, albeit in small quantities. It was distributed in Italy and Spain, as well as a few other countries.

The Japan-only computer SG-3000 is actually a SG-1000 Mark II with a built-in keyboard. A keyboard could be added to the SG-1000 to bring it in to line with the SG-3000.

Tec Toy released several games in Brazil, like *Street Fighter II* and *Dynamite Headdy*, long after the Master System had ceased to be a force elsewhere in the world.

The Brazil-only Master System Compact uses a wireless RF signal to connect to the television. A pink version was also released called the Master System Girl.

The final commercial Japanese release for the Master System/Mark III was 1989's *Bomber Raid*.

Built-in software was often a feature of Master System hardware, with games such as *Hang On*, *Alex Kidd In Miracle World*, *Sonic The Hedgehog* and the famous 'hidden maze game' (turn on the machine without a cartridge in the slot and press up and both buttons at the same time) all being included inside different variants of the console.

Sega first used Opa-Opa from *Fantasy Zone* as its mascot, but Alex Kidd was soon drafted in as a replacement. Kidd was popular – there was even a Japanese board game based on his exploits – but he too would be dropped in favour of a certain blue hedgehog.

MASTER SYSTEM

» Some early titles were released in both cartridge and card forms, with the latter usually being sold at a budget price. As games became bigger the card format was eventually dropped due to insufficient memory.

» The SG-1000 and SG-1000 Mark II – the Japanese forefathers of the Master System.

crash of 1983 had damaged confidence in the videogame industry, it had created a void that simply begged to be filled – in Japan at least. The Mark II struggled to shift units at retail, but this hardware would eventually evolve into 1985's SG-1000 'Mark III' – bar a few technical differences this was the Master System in all but name.

It was around this time that Sega's rivalry with Nintendo – which would later bloom into a full-scale war when the Mega Drive and SNES arrived on the scene – became apparent. Sega's machine was more powerful than Nintendo's, but when the Mark III and Famicom went head-to-head in Japan the former was given a rather humiliating beating by the latter. Nintendo's popular console trounced Sega's technically superior hardware thanks to a wealth of third-party support. Developers were infamously forced to agree that they would not publish their NES titles on rival hardware, which left Sega in a rather tight predicament – it could only rely on its own home-grown arcade titles for so long. The solution was to obtain the rights to 're-program' the games of other developers (a process that PC-Engine creator NEC also indulged in, ironically converting many of Sega's key arcade hits to its own 8-bit format), but even this

a meagre software library. Compared to the multitude of third-party developers that supported the NES, Sega was only able to call upon the allegiance of two in the US: Activision and Parker Brothers.

By 1988, Sega's Japanese overlords had decided that enough was enough. Keen to offload the under-performing console, the questionable decision was made to sell the US distribution rights to toy firm Tonka. While the company was the indisputable king of the bright yellow plastic digger, it, sadly, had no experience whatsoever of effectively selling a cutting-edge electronic entertainment system. Tonka immediately made some puzzling choices regarding software choices and vetoed the localisation of several key titles (many of which were selling like hot cakes elsewhere in the world). Compared to the stunning collection of software available on the NES, the result was something of a foregone conclusion. Despite Tonka taking over the distribution duties, the Master System continued to perform poorly and was all but ignored by American gamers.

A rather pointless Japanese release of the Master System hardware followed in 1987, with the console being treated with the same level of disdain as its predecessor – unsurprising when

"ANY OTHER COMPANY WOULD HAVE CAPITULATED IN THE FACE OF SUCH A DISMAL PERFORMANCE, BUT SEGA WASN'T ABOUT TO GIVE UP WITHOUT A FIGHT"

Bundle of Joy
If you thought the current confusion over Xbox 360 and PS3 bundles was a new occurrence in the console industry, think again. Back in the late-Eighties, the Master System was produced in three different packs: the 'Base' System (think '360 Core' and you're on the right track), the 'Plus' system (which added the all-important Light Phaser) and the 'Super' System (which was the same as the 'Plus', but also added the short-lived 3D Glasses). Although the existence of these different bundles undoubtedly resulted in several youngsters feeling inadequate when they got the 'Base' unit for Christmas, the peripherals that were included with the more expensive packs were not convincingly supported. The Light Phaser only enjoyed a handful of games and the 3D Glasses were dropped altogether when the Master System II hit the market – the lack of a card slot meant the remodelled console could not support the unique add-on.

strategy wasn't perfect – many of the licensed titles were distinctly lacklustre compared to the 'cream of the crop' that the NES enjoyed.

Undeterred by the underwhelming performance of the Mark III on home soil, Sega decided to release the hardware in the US, where it was radically re-styled and rebranded as the impressive-sounding 'Master System'. Released in 1986 (a year after Nintendo performed the same trick with the Famicom, which became the big loveable slab of grey plastic known as the NES), the Master System found itself in a similar predicament to the one experienced in Japan. Nintendo had spent the previous year busily promoting its new console and had snapped up key developer support from Capcom, Konami and Taito. Again, Nintendo requested that developers keep their games 'NES exclusive', and given the unassailable position the console enjoyed, few had the will to defy this request. Despite possessing technically superior hardware, Sega had, unfortunately, come to the party too late, with the Master System also crippled by

you consider it was effectively the same machine that had been released to general apathy in 1985. It was eventually discontinued in Japan two years later. Any other company would have capitulated in the face of such a dismal performance, but Sega wasn't about to give up without a fight. Carefully scanning the globe for possible conquest, the stubby finger of fate fell on Europe – the one region where Nintendo's influence had yet to be felt. Nintendo had released the NES in Europe towards the end of 1986, but poor promotion coupled with a lofty price point meant that the market penetration enjoyed by the machine was decidedly unimpressive. Sega saw the opportunity and pounced.

Ably distributed by UK company Mastertronic (previously famous for releasing budget games for the 8-bit home micros), the European variant of the Master System was unleashed in time for Christmas 1987. Spurred on by adverts that promoted the console as 'an arcade in the home', and supported by a range of killer coin-op

OTHER VERSIONS – WHEN ONE MACHINE ISN'T ENOUGH…

SG-1000 Mark III
Only released in Japan, this was the precursor to the Master System and is almost technically identical, although the FM sound chip in the Master System was an optional extra with the Mark III. Because it faced off against Nintendo's Famicom in Japan, it didn't sell particularly well and was swiftly dropped when the Mega Drive hit the market.

Master System (Mk I)
The 'classic' machine. The attractive casing features a slot for card-style games and also allows you to use the 3D Glasses. Although it's possibly the most well-known design in fan circles, it's actually harder to track one of these down in the wild than you'd imagine; because of this, second-hand prices are on the rise.

Master System II
A revision that allowed Sega to manufacture the machine more cheaply, the Master System II lacks the card slot that the original machine had. The design isn't fantastic but it's a lot smaller than its predecessor. This is probably the most common variant of the console in the West and can be found with ease at most car-boot sales.

Game Gear
Released to compete with the Game Boy, it was essentially a portable Master System. Many of the games were ports of home titles and the machine was even able to play Master System carts thanks to the 'Master Gear' converter. The Game Gear was battery hungry and suffered from a blurry screen – two factors that resulted in its downfall.

COMMUNITY – SEGA WEBSITES TO WATCH

Sega 8-bits
www.smstributes.co.uk/
One of the best Master System websites, here you'll find heaps of content including reviews, forums, hints on where to purchase a system and even regular competitions. A clean, neat and easy-to-navigate design rounds things off nicely. Highly recommended if you find yourself bitten by the Master System bug.

Master System Museum
http://alexkidd.com/
Although it's not updated particularly often, this is an excellent site for information and features a design that compliments that of the original Mk I console. It's also packed with loads of reviews and represents a handy one-stop resource for fans of the machine.

SMS Power
www.smspower.org/
The home of a group of Master System fans dedicated to preserving and documenting the history of their beloved system. The site has been around since 1997 and continues to perform valuable work in regards to keeping the memory of the console alive. Check out the excellent scan archive!

Master System Junkyard
http://segams.blogspot.com/
A blog that takes a rather wittier look at Sega's classic console than the other sites here. Within the Junkyard you'll find links to a variety of amusing content, and unlike the vast majority of Master System fan sites out there, this looks to be getting regular updates – which is nice.

» The Mark III came with a dazzling range of peripherals – none of which helped it in the fight against the Famicom.

» US Gold provided admirable support for the European Master System.

» These promotional booklets were bundled with Japanese releases.

» A 'Card Catcher' was needed to play card games on the Japanese SG-1000 Mark II.

classics such as *Hang On*, *OutRun*, *After Burner* and *Space Harrier*, the Master System quickly mopped up the market share Nintendo had been too slovenly to secure. Gamers weaned on the Spectrum and C64 suddenly saw the attraction of owning a home console – rather than playing bumbling, half-arsed conversions of their favourite arcade hits by Western companies only concerned with cashing in on popular titles, fans could indulge in highly accurate ports produced by Sega itself. "The Master System raised the bar in terms of arcade-style home gaming," explains Neil West, former editor of *Sega Power* magazine. "The hardware was a leap forward from the home computer systems we'd all been used to." It was with the Master System that many UK gamers experienced instantaneous loading – an astonishing revelation after years of waiting for tapes to load on the home computers.

Such was the success of the machine that Mastertronic soon found that the Master System was accounting for nearly its entire yearly turnover. Such spectacular performance attracted the attention of Richard Branson's Virgin, who eventually acquired the firm (which was renamed Virgin Mastertronic) and, therefore, the European distribution rights to Sega's hardware and software. It was a timely intervention and a shrewd business move as the Master System's successor was on the horizon and it would prove to be even more successful.

When the Mega Drive/Genesis was released, it spelt the end for the Master System in the US and Japan, despite a remodelled alternative appearing in the shape of the Master System II. Sega reacquired the US distribution rights for its products, from Tonka, and set about promoting the new-look Master System, possibly in the hope that the frenzied public interest in the 16-bit Genesis would somehow trickle down to its 8-bit stable mate. Sadly, it wasn't to be, and the final game to be published in the US was *Sonic The Hedgehog* in 1991. Compare this to Europe, where the Master System II was a big success and helped the format cling on to its significant market share. As the Mega Drive started to gather momentum, Sega Europe wisely kept the 8-bit console ticking over with a drip-feed of quality titles like *Streets Of Rage II*, *Mercs* and *Sonic 2*. Support finally died away in the mid-Nineties.

Another market where the Master System enjoyed almost unchallenged success was Brazil. Traditionally a region where console technology trails that of the US, Europe and Japan, the machine was released in 1989, but remained wildly popular well into the following decade, marketed with impressive skill by Tec Toy (see **Retro Gamer** 30 for more info). The company even went as far as to release a wireless variant of the Master System hardware, dubbed 'The Compact'.

When you consider this rather sketchy history, which saw the Master System fail catastrophically in two of the three key worldwide markets, it begs the question: is the console really worthy of a reassessment? The answer is simple. Without this criminally undervalued machine, Sega would not have enjoyed the considerable success it had with the Mega Drive. The Master System allowed Sega to experiment with arcade conversions, original IP and even create a mascot in the form of the loveable monkey-boy Alex Kidd. Without the Master System we also wouldn't have *Phantasy Star* – one of Sega's most well-known and best-loved franchises. Developers like Yuji Naka and Naoto Oshima cut their teeth on Sega's 8-bit hardware. Although it couldn't boast the sheer volume of classic titles possessed by Nintendo's NES, the Master System is still worthy of praise. Those gamers willing to stick with their machines back in the late-Eighties were treated to a commendable selection of games including *Wonderboy III: The Dragon's Trap*, *Psycho Fox*, *Power Strike* (aka *Aleste*), *Golvellius*, *Phantasy Star* and many, many others.

The fact that Sega was so dominant in the coin-op arena also meant that the machine played host to some commendable ports, as Neil West reveals, "The console came at a time when Sega enjoyed huge influence and power in the coin-op world, which meant a lot of games were available for conversion." Although it could be argued that the promise of 'an arcade in the home' wasn't fulfilled until the advent of the Mega Drive, the Master System nevertheless created a solid foundation to build on and gave gamers an insight into the fascinating world of Sega. This was a company that in the proceeding years would scale the heights of the world videogame industry, only to fall from grace in spectacular fashion almost as rapidly. In that respect, the Master System serves as a remarkable historical piece – with this much-maligned console, Sega tentatively tested the waters they would ultimately flounder in.

» Towards the end of its life the Master System played host to some ambitious conversions – some far more successful than others.
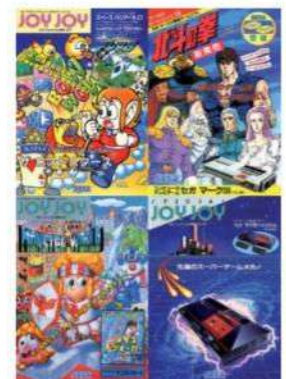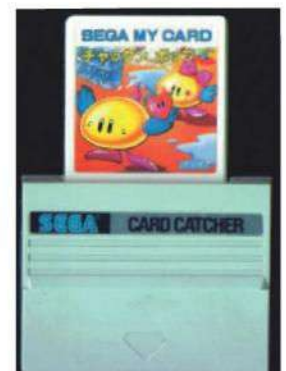
Top 25 Master System Games

Retro Gamer readers turned out in droves to vote for their favourite games on Sega's 8-bit console – Nick Thorpe has crunched the numbers and is about to begin the countdown…

Operation Wolf

- **DEVELOPER:** TAITO
- **YEAR:** 1990 ■ **GENRE:** LIGHTGUN SHOOTER

25 **The Master System's** Light Phaser peripheral got some excellent support over the years, and *Operation Wolf* is your favourite lightgun title on the system. The excellent conversion included all of the arcade game's stages and even allowed players to throw grenades using the second controller. In fact, it was such a good game that it became part of the Master System II Plus bundle in Europe, replacing previous lightgun pack-in *Safari Hunt*.
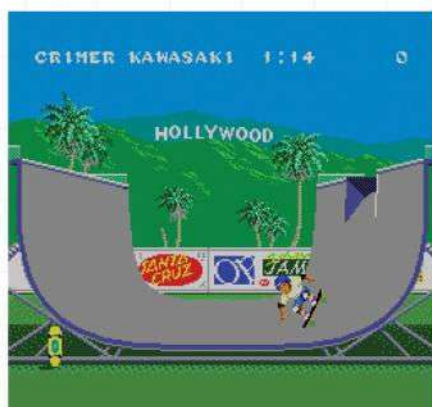
California Games

- **DEVELOPER:** SEGA
- **YEAR:** 1989 ■ **GENRE:** SPORTS

24 **Despite having a** large catalogue of arcade hits to draw on, Sega was keen to bring other big names to the Master System and so became rather active in the licensing market. These efforts ensured that Epyx's excellent multi-sports title found a perfect home on the Master System, with the console's colourful visuals really helping to bring home the sunny California feeling during each of the six events. There's a sequel too, but it doesn't live up to the original.

Bubble Bobble

- **DEVELOPER:** TAITO
- **YEAR:** 1988 ■ **GENRE:** PLATFORM

23 **Taito was one** of the few major third-party developers to ever support the Master System directly, with most firms licensing their titles to Sega to get around Nintendo's restrictive NES developer agreements. Conversions like *Bubble Bobble* certainly endeared the company to the console's owners – the game features a variety of enhancements including new items and brand new level designs, as well as new ending sequences. There's some slowdown and sprite flicker, but it's otherwise an incredibly faithful conversion.

Master Of Darkness

DEVELOPER: SIMS ■ **YEAR:** 1992 ■ **GENRE:** PLATFORM

22

We often see those who grew up with the NES dismissing Master System games as 'off-brand' versions of their childhood favourites, and while that's often not really the case, it's hard to describe *Master Of Darkness* as anything other than a *Castlevania* clone – albeit a very good one. It's a platformer in which you're out to kill Dracula, you fight all manner of supernatural enemies and even the stairs are drawn in the same odd way. However, since *Master Of Darkness* was only released in PAL territories, where the NES wasn't so dominant, there was a good chance that its players had never experienced *Castlevania* in the first place.

The storyline in *Master Of Darkness* sees psychologist and paranormal investigator Ferdinand Social taking a journey through Victorian London to investigate a series of murders in which the bodies have been completely drained of blood. This clearly isn't the work of Jack The Ripper – though you'll meet him as the first boss – and Social finds himself drawn into a nightmarish vampiric plot. *Master Of Darkness* is a very solid platform game, featuring some nice visuals and a wide array of supernatural enemies to slay, including ghosts, zombies and bats. It's also filled with memorable moments – we'll certainly never forget being trapped in a room with a succession of possessed waxworks rapidly chasing us down.

In fact, given its high quality we were surprised that *Master Of Darkness* didn't place a bit higher on the list, but your votes predominantly favoured worldwide releases from the days before the Mega Drive hit it big. As such, the fact that the game made an appearance on this list at all is a very strong indicator of just how good it is.

> *Castlevania* rip-off? Yup. But why not rip off something awesome? Plays great, and is a pretty decent challenge for most gamers
> **learnedrobb**

HI-SCORE 0044370
SCORE 0044370
LIFE

> # We'll never forget being trapped in a room with possessed waxworks
>
> Master Of Darkness gave us some memorable scary moments

SEGA® MASTER SYSTEM/Power Base

Sonic The Hedgehog

Golvellius: Valley Of Doom

■ **DEVELOPER:** COMPILE ■ **YEAR:** 1988
■ **GENRE:** ACTION-RPG

21 **At first glance,** players unfamiliar with *Golvellius* might dismiss it as a simple *Zelda* clone, but they'd be wrong to do so. Compile's adventure includes a variety of different game modes – the overworld provides a similar experience to the aforementioned NES classic, while the dungeons offer traditional platform stages and forced-scrolling vertical battles, both featuring some gigantic and detailed enemy sprites. That variety helps to keep your interest levels high while wandering the game's vast map, which offers hours of play even for the experienced adventurer. Plus, you'll be drawn into the adventure quickly by the characters you meet along the way, as their taunts and quips go beyond the purely functional dialogue found in many games of its era.

POWER

CRYSTAL

GOLDMAX
1000

GOLD
750

Choplifter

■ **DEVELOPER:** SEGA
■ **YEAR:** 1986 ■ **GENRE:** SHOOT-'EM-UP

20 **The classic rescue-themed** shoot-'em-up was one of the first games to make its way to the Master System, and was the most visually impressive of those early releases. It threw around a lot of sprites at very high speed, with some smooth faux-parallax scrolling serving as the icing on the cake. Confusingly, the Master System version of *Choplifter* is actually a conversion of a conversion: it's based on Sega's coin-op, itself an enhanced conversion of Brøderbund's original computer game. This means it includes the extra environments and scoring mechanics of the arcade game, adding a bit of extra depth and visual variety over the home computer versions.

> 66 Easily the best version of the classic game with its great graphics and more varied levels 99
> The Laird

Secret Commando

■ **DEVELOPER:** SEGA ■ **YEAR:** 1986 ■ **GENRE:** SHOOT-'EM-UP

19 **You might call** it *Rambo: First Blood Part II* if you're in North America or *Ashura* if you're in Japan, but the European title makes no bones about Sega's homage to *Commando*, Capcom's classic arcade shoot-'em-up. Just like in that game, you wander up-screen shooting all manner of infantry grunts and blowing through end-of-stage fortresses. It's a bit slower than *Commando* and features rather chunkier sprites that seem to ape the *Ikari Warriors* style, but retains the two-player co-op play that makes these games so much fun, ensuring that you'll keep coming back.

Asterix

■ **DEVELOPER:** SEGA ■ **YEAR:** 1991 ■ **GENRE:** PLATFORM

18 **For a console** which thrived on platform games and was more popular in Europe than elsewhere in the early Nineties, a licensed *Asterix* platformer was more or less the perfect release. The setup is rather plain: the Romans are holding the druid Getafix captive, and without his potions the Gauls will be powerless to resist the imperial forces. However, the gameplay is fantastic. High-quality platforming is common on the Master System, but what sets *Asterix* apart is the fact that you can opt to play as Asterix or Obelix. The former relies on his small size and potions, while the latter offers brute, block-smashing strength. Each stage has two layouts, one tailored to each character's strengths, so you'll have a rather different experience depending on which one you pick.

Ninja Gaiden

■ **DEVELOPER:** SIMS ■ **YEAR:** 1992 ■ **GENRE:** PLATFORM

17 **When discussing forgotten** entries in classic series, the Master System version of *Ninja Gaiden* demands a mention. Licensed from Tecmo but developed by SIMS, then a subsidiary of Sega, it's an entirely new adventure which retains many elements of the NES games while adding some twists of its own. Chief among these is a brand new wall-jump move, which replaces the climbing of previous games. While the visuals and music deserve praise, what makes the game so good is simply the joy of movement. Ryu Hayabusa is an incredibly agile chap, who moves quickly and is capable of navigating dangerous environments with ease. You'll feel like you have actual ninja skills when you've spent a while with the game, and slicing up bad guys is all the more enjoyable as a result.

> **Rock hard, but so satisfying to control. I loved the first level's theme**
> SMD

Double Dragon

■ **DEVELOPER:** SEGA ■ **YEAR:** 1988 ■ **GENRE:** PLATFORM

15 **The classic Technos** beat-'em-up made its way to the Master System via Sega. It's an excellent conversion featuring faithful level designs, all the enemies and even all the weaponry of the coin-op. Best of all, it includes the simultaneous two-player mode that the NES version lacked.

The Ninja

■ **DEVELOPER:** SEGA ■ **YEAR:** 1986 ■ **GENRE:** SHOOT-'EM-UP

14 **This updated version** of *Ninja Princess* is another game that many UK readers enjoyed as a £9.99 budget special. The fast-paced shoot-'em-up action is tough and it's hard to gather the five scrolls required to beat the game, but there's a lot of love for *The Ninja*.

Wonder Boy

■ **DEVELOPER:** WESTONE ■ **YEAR:** 1987 ■ **GENRE:** PLATFORM

13 **The first** *Wonder Boy* release isn't nearly as complex as later entries in the series, but that's why we like it – it's a straightforward dash to the end of each stage. This is a rather fine conversion of the coin-op, and we always did like the skateboard as a power-up.

Alex Kidd In Shinobi World

■ **DEVELOPER:** SEGA ■ **YEAR:** 1990 ■ **GENRE:** PLATFORM

12 **Originally planned as** a parody game titled *Shinobi Kid*, Alex Kidd was drafted in to add some crossover star power. The result is a great game which adds more platforming to the *Shinobi* formula and more combat to *Alex Kidd*, and should still manage to satisfy both sets of fans.

R-Type

■ **DEVELOPER:** COMPILE ■ **YEAR:** 1988 ■ **GENRE:** SHOOT-'EM-UP

11 *R-Type* received a number of fantastic conversions over the years, with the Master System's standing out as one of the best of the early efforts. There's some sprite flicker as you might expect, but it's otherwise amazing and an exclusive secret level really sweetens the deal.

> **I was gutted as a kid when I found out it wasn't a straight conversion, but ended up enjoying it way more than similar 8-bit games**
> BellyFullOfHell

Enduro Racer

■ **DEVELOPER:** SEGA ■ **YEAR:** 1987 ■ **GENRE:** RACING

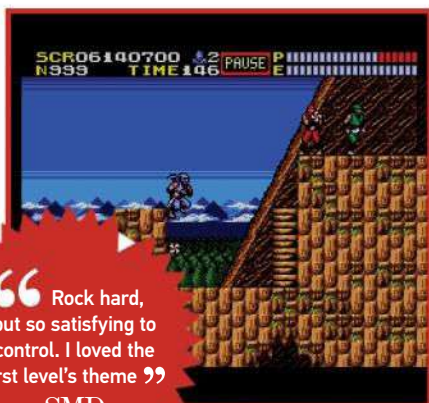**16** **Despite the fact** that ROM cartridges were unavoidably more expensive than the tapes and disks used for most home computer software, Sega and its distributors were keenly aware that price was a factor for many consumers and offered a range of lower-priced games. The budget-oriented Sega Card format didn't last too long, but Mastertronic had success in the UK by offering a range of titles for as little as £9.99 – and judging by comments we received, it seems that it was the price that persuaded many of you to buy *Enduro Racer*.

The game itself is a bit of an oddball, as it doesn't really resemble Sega's arcade game of the same name, instead playing more or less like an isometric *Excitebike*. It stands up to extended play well, thanks to its varied off-road stages and an upgrade system that really makes a difference – you'll definitely notice if you're using a better engine or improved suspension. Take note: the Japanese Mark III version of *Enduro Racer* utilises a bigger cartridge than the Western release and boasts additional stages, more varied scenery and improved presentation as a result.

Out Run

■ **DEVELOPER:** SEGA ■ **YEAR:** 1987 ■ **GENRE:** RACING

10 **The Master System** didn't always fare well with conversions of Sega's high-end arcade machines, often struggling to emulate the sprite-scaling effects that made them so impressive. However, the Master System conversion of *Out Run* is a very playable representation of the classic coin-op, including all 15 courses and the three memorable tunes of the arcade game.

While better conversions of *Out Run* have come along since the Master System's heyday, this one makes it into your top ten because of the impact it had at the time of release – it was the best home version around. Compared to the largely disappointing home computer releases, the colourful visuals and smooth movement of the console game seemed just like the real thing, lending credence to Sega's claims of arcade-quality games at home.

Fantasy Zone

■ **DEVELOPER:** SEGA ■ **YEAR:** 1986
■ **GENRE:** SHOOT-'EM-UP

9 **Sega's trippy take** on *Defender* is one of the earliest examples of the cute-'em-up, and the Master System conversion is excellent. While it had to drop the backgrounds in order to get the massive bosses on screen, it's otherwise visually faithful to the original, with bright colours and surreal enemy designs. The audio is also great, with close renditions of the arcade tunes. As for the gameplay, it's a very tight horizontally scrolling blaster which requires you to locate and destroy a series of bases in order to fight each end-of level boss. Defeated enemies drop coins to spend on power-ups, which you'll definitely need – this game is a stiff challenge despite its cartoonish visuals. We remember being utterly destroyed many, many times in our youth, but as with any great game, we kept returning for more punishment.

Wonder Boy In Monster Land

■ **DEVELOPER:** SEGA ■ **YEAR:** 1988 ■ **GENRE:** PLATFORM

8 **The second arcade** *Wonder Boy* outing was a world away from the simplistic platforming of its predecessor, retaining linear stages but introducing a currency system, shops, upgradeable weaponry and armour, and even people to converse with. There were plenty of secrets to discover too, with health and cash stashed all over the place and even hidden doors to find. The fusion of RPG elements and arcade platforming was a big hit with players, and the change of format would eventually prove to be a permanent one. The Master System conversion kept up with the coin-op due to some impressive visuals and the same cross-genre gameplay. It's a fantastic game, and remarkably one which set the stage for even bigger things to come…

Castle Of Illusion Starring Mickey Mouse

■ **DEVELOPER:** SEGA ■ **YEAR:** 1990 ■ **GENRE:** PLATFORM

7 **For a time** in the early Nineties, it seemed that picking up a Disney platform game was a guarantee of quality – Capcom turned in some fantastic NES releases, while Sega kept its own crowd happy with the likes of *Castle Of Illusion*. Minnie Mouse has been kidnapped by the evil witch Mizrabel, and it's up to Mickey to gather the seven rainbow-coloured gems and bring her back.

Despite the Master System being targeted at a younger audience following the release of the Mega Drive, the 8-bit version of the game is noticeably harder than its 16-bit counterpart. That's not for bad reasons either, as the new level designs are tough but fair. It isn't quite as visually lovely as the Mega Drive game, but it'll certainly last you a whole lot longer – and it seems you all appreciated that.

Shinobi

■ **DEVELOPER:** SEGA ■ **YEAR:** 1988 ■ **GENRE:** RUN-AND-GUN

5 **The first of** Joe Musashi's adventures received an excellent Master System conversion, which included all of the arcade stages and enemies but also provided a number of updates for the home audience. Joe could now sustain multiple hits before death and didn't have to rescue all the kidnapped kids, though it was still a good idea – they represented the only way to get new weapons, regain health and access the classic bonus stages. These enhancements helped *Shinobi* to become your top Master System arcade conversion, and we can't argue – it's ace.

Phantasy Star

■ **DEVELOPER:** SEGA ■ **YEAR:** 1987 ■ **GENRE:** RPG

6 **Alis Landale's quest** for vengeance against King Lassic is one of the all-time great RPGs, and was highly influential in the development of the genre on consoles. The large 4-megabit cartridge enabled a huge amount of visual variety and a truly epic quest for the era, the smooth animation of the first-person dungeon scenes was a sight to behold, and the game even let players save via battery backup. However, that technology meant *Phantasy Star* was a pricey release, which we suspect is why it failed to crack the top five.

Psycho Fox

■ **DEVELOPER:** VIC TOKAI ■ **YEAR:** 1989 ■ **GENRE:** PLATFORM

4 **In the days** before *Sonic The Hedgehog*, fast-paced platformers were rare, but *Psycho Fox* was one of them. Taking the basic gameplay template of NES platformer *Kid Kool*, it stars a fox which can transform into a variety of creatures – a hippo with a powerful punch, a monkey with a high jump and a really speedy tiger. Top-notch stage design and tight controls ensured the game's success, and Vic Tokai's momentum-based platforming template would later be used for *Decap Attack* on the Mega Drive.

Sonic The Hedgehog

■ **DEVELOPER:** ANCIENT ■ **YEAR:** 1991 ■ **GENRE:** PLATFORMER

3 **While Sonic might** have been created to promote the Mega Drive's strengths, Sega wasn't going to deny its 8-bit customers a chance to experience its exciting new mascot. But with Sonic Team busy creating the full-powered 16-bit version, Sega didn't have the resources to develop it in-house – enter Ancient, a new team co-founded by notable gaming musician Yuzo Koshiro. Knowing that a straight conversion of the Mega Drive platformer would be impossible, the team instead opted for a loose adaptation which lost a little of the speed and all of the loops, but remained faithful to the spirit of the original.

In fact, it's even arguable that the Master System version of *Sonic The Hedgehog* is actually a better game than its 16-bit counterpart. It might be missing a few of the flashier tricks, but the game includes completely exclusive stages with more varied level design, including gimmicks such as an auto-scrolling stage, an entirely vertical stage and a proper maze that had no place in the Mega Drive game. And while only the title theme and Green Hill Zone music remain from Masato Nakamura's iconic soundtrack, Koshiro's new music is of equally high quality.

This game set the tone for Sonic's later Master System outings, both of which would be completely disconnected from the Mega Drive releases. It served an interesting dual role, too – it was the final game for the Master System in North America, but in Europe it replaced *Alex Kidd In Miracle World* as the Master System II's built-in game, serving to extend the life of the console by bringing in thousands of new Master System owners. However, whether you experienced it as a swansong or an introduction, it's hard to deny that *Sonic The Hedgehog* is an excellent platformer which deserves its high place on this list.

Arguably a better game than its 16-bit counterpart

Master System Sonic impressed with is more varied level design

Alex Kidd In Miracle World

■ **DEVELOPER:** SEGA ■ **YEAR:** 1986 ■ **GENRE:** PLATFORM

2 You had to know that if Sonic was high on this list, his predecessor as Sega's mascot wasn't going to be too far away. Despite having received five games on the Master System, it's Alex Kidd's debut that stands the test of time as the strongest instalment in the series and one of the strongest games on the console. *Alex Kidd In Miracle World* owes a lot to Nintendo – the game takes inspiration from the incredibly popular *Super Mario Bros*, with its visual similarities and destructible blocks showing the influence clearly. However, Alex's choice to punch the blocks instead of headbutting them is only the start of the differences.

While Nintendo's hit is a fairly simplistic platform game, Sega loaded its release with features that keep the gameplay varied. While Mario's coins existed solely to provide extra lives, Alex can spend the money he collects in shops throughout the game. He can also store items to use later on, a feature which would eventually be added to Nintendo's series, and even ride vehicles such as a motorbike and a speedboat. The rock-paper-scissors boss battles seem like a strange inclusion, but for many they're simply a part of the game's unique charm.

Sega's fortunes never benefited from Alex Kidd in the same way as Nintendo's did from Mario, but it's not hard to explain why this game placed so high in your list – it was built into all North American Master System II consoles and a great many of the European ones, ensuring popularity from the get-go. Gamers would return to their cartridge-free consoles time and time again to play it, and they were rewarded with the kind of lengthy, challenging platform adventure that is not commonly surpassed on any format. In fact, on this console only a single game manages to do so…

> **Loaded with features for varied gameplay**
> Alex Kidd is far more than a Super Mario Bros variant
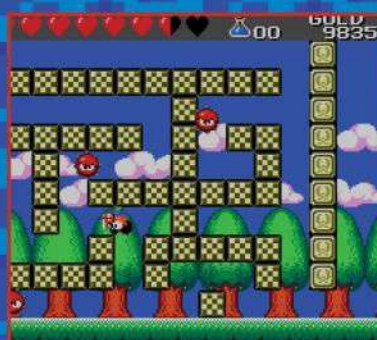
Wonder Boy III: The Dragon's Trap

■ **DEVELOPER:** WESTONE ■ **YEAR:** 1989 ■ **GENRE:** PLATFORM

1 **If there's one** thing the Master System excels at, it's definitely platform games – the genre is clearly dominant in this top 25, so only a platformer of exceptional quality could possibly rise to the top. Described in a 95% *Mean Machines* review as "one of the best games of its type available on any console," it's fair to say that *Wonder Boy III: The Dragon's Trap* is a platformer of exceptional quality.

Beginning in the final level of *Wonder Boy In Monster Land*, you get the chance to fight the final boss of that game again – but this time, defeating it reveals a nasty surprise. Our plucky hero is cursed upon the dragon's defeat, transforming him into a fire-breathing lizard. He escapes the collapsing castle but now needs to become human again, so a new quest begins, taking him to locations such as a spooky forest, a dry desert and a fiery cave. That sounds like standard fare for the series but unlike its predecessor, *Wonder Boy III* doesn't contain individual stages. Instead, it takes place in a single large world where everything is connected and you're only limited by the obstacles you can overcome.

Of course, as a lizard you can't overcome too many obstacles, but during the journey you'll encounter more dragons and be transformed into new animal forms. The first is a tiny wall-scaling mouse, while later ones include a lion with a massive sword swing and an eagle which can fly. All of these forms enable you to visit new areas and access new areas in old ones, creating the feeling of a grand adventure where undiscovered secrets could be hiding anywhere.

The *Metroid*-esque structure is certainly great, but it's far from the only thing that makes *Wonder Boy III* so good. The controls are dead-on while the vibrant, detailed visuals are superb and sprite flicker is kept to a minimum. In some places, the game almost reaches the visual quality of early Mega Drive releases. The soundtrack contains a number of superbly composed tunes and even supports the FM add-on for improved sound, despite never having been released in Japan.

Wonder Boy III would be a great game on its own, but as a sequel it really acts as a model for others to follow. New players are brought into the action quickly thanks to the game's inspired introduction, while old fans have a whole new structure and new abilities to play with. It's telling that *Castlevania: Symphony Of The Night*, a PlayStation classic considered by many to be the pinnacle of that series, shares a lot of its design traits with *The Dragon's Trap*. It just goes to show that while **Retro Gamer** readers have voted for *Wonder Boy III: The Dragon's Trap* as their favourite Master System game, its design principles ensure that it would be an exceptional game on any platform.

5 reasons why it's great

It's a truly epic adventure, requiring multiple nights of play and password saves to reach the ending.

Each of the different transformations feels truly unique, changing the way you play the game.

It's a great example of the Master System's visual strengths, with colourful graphics and detailed backgrounds.

Shinichi Sakamoto's soundtrack is fantastic, and should get far more recognition – there's even an FM version!

Beginning from the final level of the previous game is one of the greatest introductions to any game, ever.

Wonder Boy III

The Dragon's Trap

After readers declared it to be their favourite Master System game Darran Jones had little choice but to interview Ryuichi Nishizawa about his magnificent adventure

WONDER BOY III: THE DRAGON'S TRAP 101

■ For his latest *Wonder Boy* game, Ryuichi Nishizawa decided to take the series to home consoles, in this case, the Sega Master System. The end result is *The Dragon's Trap*, a clever blend of platforming and adventuring that sees hero Tom-Tom facing off against a selection of deadly dragons. Fortunately, the little fella is far from defenceless, being able to transform into a variety of handy animal forms.

Ryuichi Nishizawa isn't the sort of man who likes to rest on his laurels. When he came up with the concept of *Wonder Boy* in 1986 and turned it into a hugely successful platformer he could have eased back and created the same game until gamers took notice and asked for something different. Instead, he evolved the franchise, ensuring that it always played differently, while staying true to the platform structure that had been created for that very first game.

Wonder Boy III: The Dragon's Trap is arguably the best game in the series and a jewel in any Master System owner's collection. While platforming is prevalent, it builds on the RPG-lite mechanics that first appeared in *Wonder Boy In Monster Land*. Unlike the previous two games, which featured separate stages, the sections of *The Dragon's Trap* are linked together to create one world – a world that's full of danger and wonder.

It's worth noting that *Wonder Boy III: The Dragon's Trap* is the first game in the series that was created specifically for

» The beginning of *The Dragon's Trap* is a lovely touch for those that played its predecessor.

» There's a hidden 'Charm Points' system, which controls what shopkeepers will sell you.

a home console and that it is a different game to *Wonder Boy III: Monster Lair* that was released in arcades in 1988. While *The Dragon's Trap* is an adventure game that focuses on exploring the environment, *Monster Lair* plays like the original arcade game crossed with a shoot-'em-up. Surely it would have been easy to port the arcade game, as the previous two games had been ported? "I am not interested in ports," explains Nishizawa to us, "I like developing new games. The port development that I've performed myself is only *Monster World II* for Game Gear."

Wanting to create a new *Wonder Boy* game, but uninterested in compromising his vision, Nishizawa turned his attention to Sega's Master System and assembled a team of developers to create what many gamers feel is the console's masterpiece. "The staff was just five people," reveals Nishizawa, "I handled game design and main programming." According to Nishizawa that rest of his team consisted of two additional

» Transformation chambers are hidden throughout the game and let you change form at will.

» Chests contain a number of handy items.

» Hawk-Man's ability to fly lets him go virtually anywhere.

programmers, Takanori Kurihara and Naoki Hoshizaki, Hiromi Suzuko on graphic design and composer, Shinichi Sakamoto. Despite the size of the game and the small team developing it, *The Dragon's Trap* was completed in just ten short months.

While talking about the game's creation we were interested in learning where the idea for *The Dragon's Trap* first originated. Unlike the previous games in the series there are elements of *Metroid* to its structure, a fact Nishizawa was able to confirm to us. "*Metroid* was released in 1986 and *Zelda II: The Adventure Of Link* was released in 1987," he begins. "I was a big fan of both of those games, so it was natural that I came under the influence of them." There was an additional game that would greatly inspire the key mechanic of *The Dragon's Trap*, namely the ability to transform into various animals that would in turn open up the huge game world to Tom-Tom, the game's hero. "Whenever I think about the plans of a sequel, I ask the person who is near me, 'what is the game that you are most interested in?' At that time the name Konami's *Wai Wai World* for the Famicom was given to me. [So] I asked the person 'what is it about the

"It's a feature of RPGs to knock down a dragon in the last part of the story"

Ryuichi Nishizawa

game that is interesting?' His reply was: 'The point where a character can transform, and the activity changes.' By the way, I've not actually played it."

Although he never played Konami's Famicom game, Nishizawa couldn't get the idea of transforming characters out of his head and he knew that it would form a key part of his new game. With an idea formed he needed some inspiration for where the transformations would come from and how they could be integrated into the story. Lightning struck when Nishizawa came up with the idea of featuring the end of *Wonder Boy In Monster Land*, only to have the defeated dragon leave behind a mean trick that not only transforms you into a beast, but also requires you to escape the castle. It's a great idea and was copied by Konami for *Castlevania: Symphony Of The Night*'s opening. "I felt that was the most effective way to have as an opening for the sequel,' explains Nishizawa. "Any player who played the previous ▶

Power-Up!
Key items to defeat the dragon's trap

ARROW

BOOMERANG

FIREBALL

THUNDER

TORNADO

»Here's all three pieces of box art for *The Dragon's Trap*. We prefer the Master System one best.

A Mini Adventure

Springing a portable trap

In addition to a PC Engine port, *The Dragon's Trap* was also ported to the Game Gear. Nishizawa explained why it has so many changes to the Master System game. "If I just simply converted it, the displayed area became too small and there was a possibility that the level design would be a failure, thus the game itself would become boring. In other words, to create the Game Gear version (called *Monster World 2*), the simple conversion was not an option and it was necessary to recreate the Level Design. And to do that, I thought it was the quickest if I created it by myself."

As a result Nishizawa restructured the areas Tom-Tom could explore in his guises, designing it so it captivated the player. "Even when the screen size became smaller, it was important that the players should be able to see the treasure box on the other side of the wall and get them to be motivated by making them think, 'What should I do to get that?' So I reorganised the position of the enemies and items in every scene."
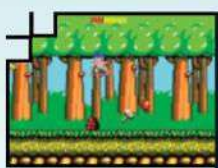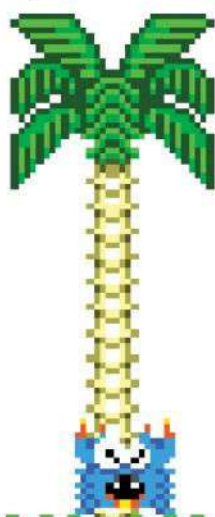
game would feel the continuity. And if anybody who has not played the previous game would be interested in it."

Equally interesting was the creature design that Nishizawa used for his game. Although you start off as Tom-Tom, other creature forms become available to you. Each animal has its own abilities, which in turn open up the game, allowing you to explore the world further. In addition to Lizard-Man, Mouse-Man can climb walls, Piranha-Man swims, Lion-Man can use his arching sword attack to clear blocks, while Hawk-Man has the power of flight. The structure of *The Dragon's Trap* works similarly to *Metroid*, except that it is new forms and not weapons that enable you to progress through the game. "I designed the [transformations] with the idea of a beast person (therianthropy) in mind. Examples of therianthropy include the Minotaur, mermen, lizard men and lycanthropes. Because they do not appear in myths, Mouse-Man and Hawk-Man are original." Despite having access to a large number of creatures, Nishizawa gave us an emphatic "No!" when we asked him if any creatures had been left out.

» Tec Toy replaced the sprites with characters from the Brazilian comic, *Monica's Gang*.

Although *The Dragon's Trap* was created for the Sega Master System, Nishizawa didn't find the limited hardware to be that much of an issue. "Because the design of Sega's arcade board resembled that of the Master System, I did not have that hard of a time programming. Of course, the specifications for the [Master System] were smaller." That's not to say that there weren't problems with the hardware and Nishizawa regrets that he couldn't do more to convey the story of *The Dragon's Trap*, telling us, "because memory was small, I had trouble with expressing the scenes of the adventure with a few pictures." Another issue the team faced was with the controls of Mouse-Man. While all the characters are able to walk, Mouse-Man is the only one who is able to walk up walls or even upside down. It's a neat trick, but is a bit clunky in practice. Nishizawa admits as much, revealing, "it's difficult. It was hard to program without spoiling operability."

It might not have been easy to get Mouse-Man working, but the payoff was huge, instantly making the character stand apart from the rest of *The Dragon's Trap*'s motley crew. While the vast majority of the game is spent as Lizard-Man, the later characters are all giving sections to shine in with, the transformation to Piranha-Man being a particularly noticeable example. While

every character bar Hawk-Man can function in water, they're incredibly slow and at the mercy of the sea's many denizens. Piranha-Man has no such issues, being able to move around with ease, turning a once-difficult gauntlet into an exotic, interesting location to explore. When you first start playing *The Dragon's Trap* it initially appears to be quite a basic game with little challenge. The integration of the animals, along with the open world soon makes you realise otherwise, however, and there are many sections where you'll have to repeatedly transform forms in order to navigate some of the more devious areas that the talented team had devised.

» It's clear that *Monster Boy And The Cursed Kingdom* is heavily indebted to *The Dragon's Trap.*

DEVELOPER HIGHLIGHTS

WONDER BOY (PICTURED)
SYSTEM: Arcade
YEAR: 1986
WONDER BOY IN MONSTER LAND
SYSTEM: Arcade
YEAR: 1987
WONDER BOY III: MONSTER LAIR
SYSTEM: Arcade
YEAR: 1988

» While Bock Lee Temjin is his real name, he's also affectionately known as Tom-Tom.

» Wonderboy: The Dragon's Trap HD is a beautiful looking update of the classic game with stunning animation.

I join this project.

Being an evolution of the series, *The Dragon's Trap* shares numerous similarities with *Monster Land*, including the ability to visit shops that allow you to upgrade your armour, shields and purchase limited use weapons. It's also possible to visit hospitals where you can restore your health. Interestingly, you can no longer purchase alcohol like you could in *Monster Land*. The addition of shops to the series was to simply ensure that anyone could enjoy the game, with Nishizawa revealing, "the player who is [poor] at action games can enjoy it." Nishizawa also has an explanation for why so many of the vendors found in *The Dragon's Trap* are animals. "I just had the designer draw them freely," he admits, going on to say that "the one-eyed pig seems to have high popularity [with fans]."

Considering its high profile nature and the fact it was created by a notable Japanese developer, *The Dragon's Trap* wasn't actually released in Japan. Japanese gamers wouldn't experience the popular game until it was ported to the PC Engine and Game Gear, the latter of which was ported by Nishizawa himself. We were keen to know if he was disappointed about the absence of the Master System version in Japan. "I think the most disappointed person was Mr Sakamoto who was the composer of the game," reveals Nishizawa. "He worked hard to get them to work on both PSG sound source and FM sound source and yet

the Master System, which was released in North America, did not even have FM system unit installed." Anyone who has ever heard any FM-based Master System soundtracks will know about Sakamoto's lament, so it's a pity that the soundtrack (which is still very good) wasn't as epic as the composer had originally intended.

> ## "I am not interested in port development, I just like developing new games"
> Ryuichi Nishizawa

Despite this reservation, Nishizawa is still pleased with the game his team were able to create and is equally pleased that it remains so fondly loved by so many gamers today. It's arguable that the popularity of *The Dragon's Trap* is one of the main reasons why Nishizawa's new game, *Monster Boy And The*

Cursed Kingdom proved to be so popular when it launched on Kickstarter recently, and it's no coincidence that it shares so many similarities, both aesthetically and mechanically, with Nishizawa's smash hit Master System game. "I think the biggest charm of the game is what it allows the player to imagine," concludes Nishizawa to us. "If you let imagination act, you can see it anytime."

Amazingly, the story of *The Dragons' Trap* still isn't quite finished as a new game is on the way courtesy of DotEmu and developer Lizardcube. Unlike *Monster Boy*, *Wonder Boy: The Dragon's Trap HD* is an officially licensed game and a direct remake of the original, albeit with stunning new animation and glorious looking locations. A trailer was recently released to huge acclaim online, suggesting that Nishizawa's game will soon be appreciated by a whole new generation of games. ✱

Thar be dragons! The bosses that like springing traps

MECHA DRAGON
■ The very first dragon you encounter was the final boss of *Wonder Boy In Monster Land*. Despite his fearsome appearance, he goes down easily if you administer some sharp blows to the head.

MUMMY DRAGON
■ The second boss will turn you into Mouse-Man. Before that happens, you'll need to avoid the green goo he spits out and hit him in his fleshy proboscis whenever the opportunity arises.

ZOMBIE DRAGON
■ Nishizawa's favourite dragon is a painfully shy boss, choosing to disappear under the ground in the hope that he'll catch you unawares. When he does appear he hammers you with an endless stream of projectiles.

CAPTAIN DRAGON
■ This guy hides in a sunken pirate ship that can only be reached by Piranha-Man. He's a tough boss, firing hooks at you and using an off-putting jump. As always, hitting his nose will cause his defeat.

DAIMYO DRAGON
■ Lion-Man may have an impressive sword, but Daiymo Dragon's is even longer. Avoid the multiple blue projectiles he fires at you and watch out for his great reach. His parting gift turns you into Hawk-Man.

VAMPIRE DRAGON
■ Unsurprisingly, the final boss is also the toughest that you face. This is mainly due to his erratic flight patterns, which often require you to fly in order to reach him. Stab him in his gut to win.

FANTASY ZONE

TO BE THIS GAUDY TAKES SEGA...

PUSH 1 PLAY START BUTTON OR

» **PUBLISHER** SEGA
» **RELEASED:** 1986
» **GENRE:** SHOOT-'EM-UP
» **FEATURED HARDWARE:** MASTER SYSTEM
» **EXPECT TO PAY:** £7+

HISTORY

Sega's Master System was a wonderful little console that always came second place to Nintendo's NES. A shame really, as it had some truly cracking arcade conversions available for it that made up in heart and gameplay what their 8-bit visuals and sound often lacked. Every now and then though a title came along that did a remarkable job of capturing the spirit of the original arcade game. *Fantasy Zone* was one such game.

One of the original cute-'em-ups, Sega's loony shooter saw you taking control of a sweet little spaceship and blasting your way through some of the brightest, weirdest looking enemies ever seen. Many of the beasties you encountered were some of the strangest aberrations to grace a videogame and provided a unique window into the (no doubt) deranged minds that thought it would make perfect sense to host all these bizarre creations in one game.

Sega was right of course.

Fantasy Zone's bright, pastel-coloured world and crazy occupants was like no other shooter around and allowed the game to develop a cult following. While the Master System version wasn't without its faults, it was an extremely faithful port that seldom strayed from its arcade parent. The quirky music, marvellous visuals, outrageous power-ups; everything was ported with near perfect precision; even the huge bizarre bosses had made it across intact.

Sure *Fantasy Zone* was simple to play, but therein lay its charm. Each level required you to do nothing more than fly back and fourth across the gaudy landscape and take out the many purple bases dotted about each stage. Whenever an opponent was defeated it would drop behind a coin that could then be spent at the shops that floated by. Once tooled up, it was simply a case of clearing the rest of the stage's enemies and facing off against a big boss…

It's been superseded by superior versions (including a recent PS2 offering) but Sega's 8-bit version remains a testament to what its console could do in talented hands.

Gaming's Greatest Underdog

ALEX KIDD

FIRST APPEARANCE: ALEX KIDD IN MIRACLE WORLD

» YEAR:	1986
» LIKEABILITY:	90
» NUMBER OF GAMES:	6
» POPULARITY:	86
» VERSATILITY:	88

Alex Kidd might not have gone the distance as a mascot for Sega but he did for the Master System. Stuart Hunt looks back on the life and games of Sega's 8-bit underdog – or perhaps should that be undermonkey?

The Kameo Kidd

Alex has popped up in plenty of different Sega games over the years…

ALTERED BEAST
■ The names of Alex and girlfriend Stella are chiselled onto gravestones. Spooky prediction of Alex's death as Sega mascot or a knowing Sega poking fun?

» At one stage *Miracle World* was set to get the Sega Ages treatment, but unfortunately for fans it never happened.

I'M "STONE HEAD,"
THE THIRD HENCHMAN OF THE
KING. I'LL LET YOU PASS BY
HERE IF YOU WIN THREE
"JANKEN" MATCHES.

» Alex uses Rock, Paper, Scissors to defeat many of the enemies that he faces. Paper for the win!

Though it took Sega three goes to finally settle on Sonic as its mascot, Opa-Opa and Alex Kidd, the characters that held the honour before him, are just as important to its history. Both symbolise Sega's growth as a developer during the Eighties: Opa serves as a great reminder of Sega's illustrious coin-op beginnings, and Alex its battle to find its place in the console market.

Opa was the star of the cutesy and colourful 1986 *Defender*-style shooter *Fantasy World* and is widely regarded as being Sega's first mascot character. A sentient spaceship with feet, wings and egg-shaped body, Opa may not have been ideal mascot material on reflection, but *Fantasy Zone*'s popularity in Japan, combined with the character's anthropomorphic look, did make him an understandable candidate for mainstay Sega hero at the time.

Opa's time being the apple of Sega's eye, though, was fairly brief. And though some have questioned if he was ever really an official mascot, there is strong evidence that suggests Sega favoured him in the Eighties. As well as appearing in four *Fantasy Zone* games inside the decade (six, and one
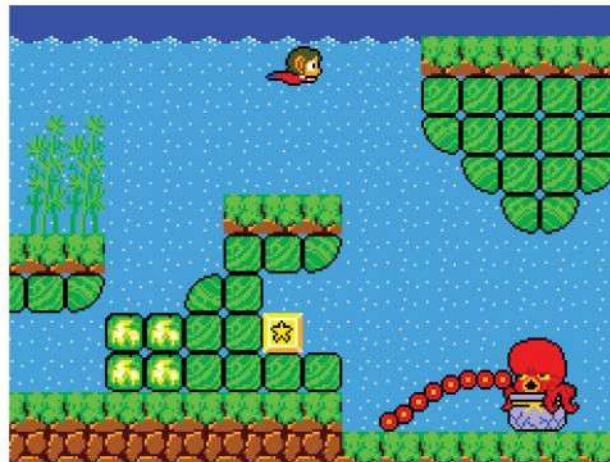
unreleased game in the PC Engine-headed *Space Fantasy Zone*, in total), Opa had cameo appearances in a bunch of Sega titles, including *Teddy Boy*, *Zillion* and *Alex Kidd: The Lost Stars*.

Despite Opa's coin-op success and sequels however, the landscape of popular gaming was changing thanks to Nintendo, the NES and its

» *Alex Kidd In Miracle World* remains Alex's most famous game. It was designed by Kotaro Hayashida, who later worked on *Phantasy Star* and *Shining Force*.

killer app *Super Mario Bros*. With Sega and its Sega Mark III console taking just a small slice of the domestic game market in Japan, Sega took the decision to launch the Mark III as the Sega Master System in the West and give it its own system-born platformer hero to attract gamers to the machine.

Alex Kidd was that hero and made his videogame debut in the 1986 platformer *Alex Kidd In Miracle World*. Designed by Kotaro Hayashida (using the pseudonym Ossale Kohta), Hayashida's Sega credits also include *Zillion*, *Woody Pop* and *Phantasy Star*, and it's the latter title that offers a hint as to what made *Miracle World* stand out from other platformers at the time.

"*Miracle World* is rough around the edges," says Kurt Kalata, head editor of retro gaming website Hardcore Gaming 101, "but it has a real 'epic adventure' feel that was missing from most platformers at the time. The money gathering, the hidden stuff, the map, the vehicles, the little bits of plot throughout. It's fairly advanced for a console title from 1986."

While most platformers followed the simple run-and-jump from left to right recipe, *Miracle World* featured strategy and RPG elements

KENSEIDEN
■ Another stone-based cameo – this one in the hack-and-slash SMS platformer *Kenseiden*. On the third stage Alex's face can be seen hidden in the cave walls.

SEGAGAGA
■ Alex's most memorable cameo was in *Segagaga*, where he appeared as a videogame store clerk lamenting his treatment by Sega following the arrival of the blue spiky one.
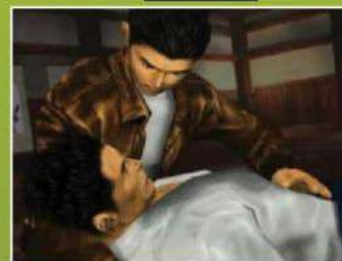
SHENMUE
■ Alex collectable capsule toys appear in both *Shenmue* instalments. Other Sega personalities given the Kinder Egg treatment include Opa-Opa, Ristar and *Virtua Fighter* cast members.

SEGA SUPERSTARS SERIES
■ More recently, Alex appeared in both *Sega Superstars Tennis* and the *Sega All-Stars Racing* series. In the latter he rides his red motorbike from *Miracle World*.

» Discounting cameos, Alex has starred in six games and each one is different to the last.

» *Lost Stars* gave Alex a girlfriend sidekick. Subsequent games wouldn't use her again though, even the SMS *Lost Stars* conversion.

and its levels were all distinctively themed. Some of its more obvious adventure game elements included a world map, mini-games in the form of Janken (Rock-Paper-Scissors) and in-game currency (Baums) that could be collected and used by Alex to purchase useful gadgets and power-ups – from vehicles to powerful artefacts.

Miracle World's story was also fairly involved and made use of two pretty big adventure story clichés: a powerful tyrant seizing a peaceful land and a young boy learning that he's a lost prince. All of this simply helped to create a richer-feeling world that many gamers and platformer fans were drawn to.

Miracle World remains the most popular and well-known game in the *Alex Kidd* series, and what undoubtedly helped it to achieve this status was Sega's decision to build it into Master System consoles, fusing it and Alex to the machine's legacy forever. And while *Miracle World* wasn't the first game integrated into Sega Master Systems (see Built To Thrill box out), it is the one that gamers seem to remember most vividly.

Alex Kidd: The Lost Stars was Alex's next game and was released just a few short weeks after *Miracle World*. Notable for being the only arcade game in the series, *Lost Stars* placed Alex in a more traditional

"He was well known among the small handful of kids who had Sega Master Systems"

Kurt Kalata

style of platformer and gave him a girlfriend sidekick named Stella. The gameplay tasked the lovebirds – if playing co-op – with racing through its 12 stages to collect Zodiac signs, while negotiating obstacles and avoiding a very strange roster of enemies.

Its levels include a colourful toy world, a factory guarded by deadly robots and machinery, and an underwater stage that feels very much inspired by *Miracle World*'s submerged areas. *Lost Stars* also features a few cameos and nods to other Sega games – from penguins kicking ice cubes across the ice (*Pengo*), to a retired and bloated-looking Opa-Opa (a reference perhaps to Sega putting the character out to pasture).

One of the things that hurt Alex was Sega placing him in different styles of game, ostensibly viewing him as a sort of all-purpose hero rather than letting him grow a fan-base within the genre he was designed for.

Alex Kidd In High Tech World, which is a misleading title as it kind of gives the impression that it's cut from a similar cloth to *Miracle World*, was an action-RPG for the SMS that saw Alex on a quest to find a Sega amusement arcade.

High Tech World was never released in Japan, as there it is known as *Anmitsu Hime* and isn't associated with the *Alex Kidd* series at all. Instead it's based on a Japanese manga and anime about a spirited young princess. The games are pretty much identical save for the necessary tweaks to the sprites, dialogue and story – rather than an amusement arcade the princess is on the hunt for a bakery.

The resulting meld results in a bizarre *Alex Kidd* adventure given that it's set in ancient Japan and stars a cast made up of samurais and ninjas. It also suffers from retcon, with Alex referring to one of the samurai characters in the game as his dad. *High Tech World* isn't Alex's best outing, but it does at least retain *Miracle World*'s adventure/platformer recipe – even if it get the parts and mixing wrong.

Released in Japan in 1987, *Alex Kidd BMX Trial* was an overhead racer designed to help sell the Mark III's paddle controller, a peripheral that came bundled with the game. *BMX Trial* saw Alex negotiating colourful obstacle courses, avoiding rival racers and performing jumps on a motocross cycle. It lacks excitement and the controls could be tighter, two issues that spell disaster for a racing game. The track design is the best thing about it, with nice wide stages that allow Alex to
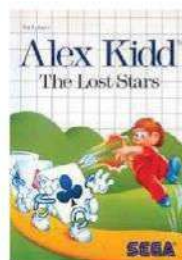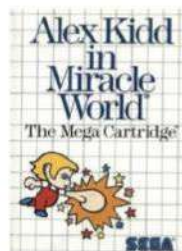
» *Alex Kidd BMX Trial* was never released outside of Japan. It's become quite sought after by collectors.

» The later levels of *Alex Kidd BMX Trial* can get extremely tricky.

Rieko Kodama Talks

A brief chat with the artist behind Alex Kidd In Miracle World

Are you glad that Alex lives on in games like *Sega Super Star Tennis* and *Sonic All-Stars Racing Transformed*?
I am simply happy that he still is appearing in games and I really appreciate the fact that people remember him so long after the original game was launched.

How did you find working on the Mega Drive Alex Kidd compared to the Master System version?
We were able to use more colours, and parallax-scrolling was available, so we used that.

How would you like Alex Kidd to be remembered?
I have received a lot of comments from fans like "I played with my father when I was a kid! It is a good memory."
I would like Alex to be remembered as one of your friends you played with when you were a child.

venture off-road (albeit in a very limited sense) and not stick to a set route. It's a strange *Alex Kidd* title that feels more like a spin-off than a true *Alex Kidd* outing.

What could have been the game to really help catapult Alex to stardom in the US sadly turned out to be a 16-bit damp squib – one that most likely sounded the final death knell for his career with Sega. Released in Japan in 1989 and a launch game for the Genesis the following year, *Alex Kidd In The Enchanted Castle* was a late-to-arrive sequel to *Miracle World*. Expanding on the original story, it sees Alex on a mission to find the whereabouts of his dad King Thor, a quest that leads him to the colourful Paper-Rock-Scissors-obsessed planet of Paperock.

Enchanted Castle's gameplay is very similar to *Miracle World*'s. That is to say you punch things, you jump over things, you buy things, you drive things and you play Paper-Rock-Scissors with things. However, despite the

extra power of the Mega Drive and a return to a genre that had worked for Alex, *Enchanted Castle* sadly failed to capture the considerable charm of its predecessor.

The biggest issues are that visuals barely look a step up from *Miracle World*, the controls feel even more slippy than they did in *Miracle World* and the stages just don't feel as fun or creative. It's not all doom and gloom though. Improvements are made in a few areas. Alex's move repertoire is expanded upon, certain coloured blocks could now be punched at enemies and purchased items were now stored in a handy inventory that Alex could dip into at any time.

Though it had been a bumpy ride for Alex up to this point, his final game did at least see him claw back some love and credibility in the enjoyable, if a bit short, *Alex Kidd In Shinobi World*. Released for the SMS in US and Europe, *Shinobi World* saw Alex gatecrash another Sega franchise and get to
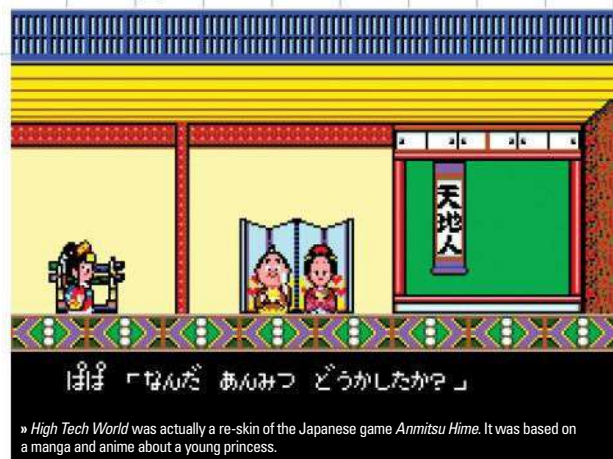
» *High Tech World* was actually a re-skin of the Japanese game *Anmitsu Hime*. It was based on a manga and anime about a young princess.
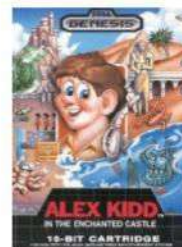
live out his final days in more conformable 8-bit surroundings. But it was a wonderful little swansong for Alex Kidd that almost never happened.

Shinobi World was originally going to be titled *Shinobi Kid*, and was to have no reference to the *Alex Kidd* series at all. The original game was also to feature a first boss named Mari-Oh (a play on *Shinobi* first boss Ken Oh) who was a thinly veiled parody of a certain Nintendo mascot. Sadly, he never made it into the finished game, but Alex did.

With its ingredients including cutesy versions of levels, weapons, music, enemies and bosses from *Shinobi*, *Alex Kidd In Shinobi World* is an entertaining little Sega mash-up and one of the better action games available for the SMS.

It would be fair to say that Alex Kidd never reached the videogame A-list thanks to him failing to make a splash in North America. There he was hurt by poor marketing (cover art for his games portrayed him as a gawky teenage boy) and the SMS also failing to take off.

"I knew about him as a kid, somehow," remembers Kurt. "He was well known among the small handful of kids that had Sega Master Systems. Anecdotally, there were only ▶

» *Enchanted Castle* was a late sequel to *Miracle World*. Sadly though, it was unsuccessful in recapturing the original's magic.
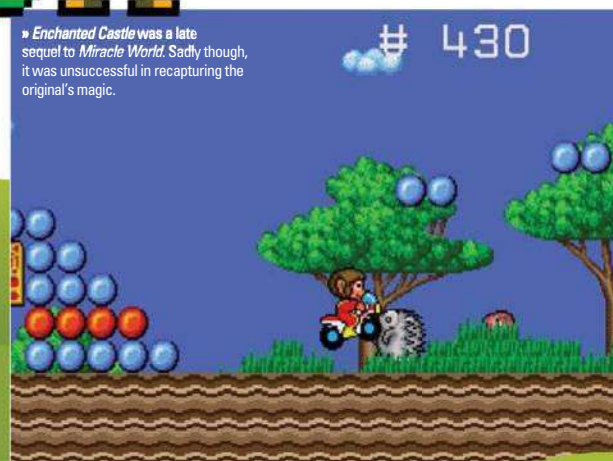
Anatomy of Alex Kidd

Discover what makes Sega's old mascot tick

EARLY ORIGINS
■ Alex is believed to have been based on the Monkey King from the classic Chinese novel *Journey To The West* – the same Monkey King that became the inspiration for the hero in the *Monkey* TV series from the Seventies

STREET CRED
■ Alex's anime look was played down outside of Japan, with Western cover and promotional art depicting him as a gawky teenager with about as much edge as a rubber ring. Naturally, this did nothing to help boost his cred in playgrounds.

GAME OF ALEX?
■ It's also believed that Alex's bright red jumpsuit could have inspired by the iconic yellow jumpsuit worn by martial arts legend Bruce Lee in his final film, *The Game Of Death*.

FISTS OF FURY
■ Alex has dedicated years of his young life to mastering the 'Shellcore' technique, a fictional martial art that allows him to enlarge his fists to effortlessly break rock.

FOOTWEAR
■ Alex is known for having poor footwear. His shoes are slippery and offer little stability. Not really the best feet tools for platformers. Maybe he should invest in some platform shoes? Sorry.

Built To Thrill

Alex Kidd In Miracle World wasn't the only game that lived inside Master Systems…

SNAIL MAZE

BUILT-INTO:

SMS model number – 3000

■ Unlocked by pressing UP and buttons 1 and 2 with no cartridge in the console, *Snail Maze* was a hidden game that plays exactly as it sounds. You must help a snail work through mazes and reach an exit within a time limit. As you progress the time limit gets tighter.

HANG-ON

BUILT-INTO: SMS model number – 3005-24

■ A big hit, so undoubtedly Sega was keen to make Yu Suzuki's *Hang-On* an incentive for consumers to purchase its console. The Master System port isn't that bad. It not perfect and does get repetitive, but it looks nice and the animation and controls are smooth enough.

MISSILE DEFENSE 3D

BUILT-INTO: SMS model number – 3005-C

■ *Missile Defense 3D* is a simple but entertaining lightgun game that does well to demo the potential of Sega's 3D glasses. Like *Missile Command*, you must protect a city from missile threats. The action takes place across three stages, and must shoot down the missiles before they reach and decimate their destination.

HANG-ON & SAFARI HUNT & SNAIL MAZE

BUILT-INTO: SMS model number – 3010-A

■ The ultimate SMS 1 variant is probably the 3010-A as it came with three built in games: *Snail Maze* (hidden) and *Hang-On* and *Safari Hunt* as a double-pack. The latter is a generic lightgun game to simply show off the SMS Light Phaser. It's basically Sega's *Duck Hunt*.

SONIC THE HEDGEHOG

BUILT-INTO: Master System II variant

■ Once Sonic had become a platform superstar, Alex was left out on his big ear. Sega looked to blue hedgehog mania to help it sell its then last-gen system, and as part of the deal Alex had to give up his home. Admittedly though, it was a smart move.

"You can't talk about old games in Brazil without mentioning Alex Kidd"

Marcelo Barbosa

▶ two other kids in my entire school that had one, so there probably weren't many. Other than that, I think most gamers only know him from *Enchanted Castle* on the Genesis, since it was a launch title for the system and was snagged by a lot of early adopters and featured in advertisements."

Though Alex failed to break North America, there were places where he found fans, namely those countries where the SMS was popular, such as Brazil.

Brazilian Marcelo Barbosa (aka MCB Remakes) has been working on an HD update of *Alex Kidd In Miracle World*. Raised and still living in Brazil, Marcelo shares his memories of Alex's life in his country, giving us a glimpse of an unfamiliar world to many gamers where Alex actually went some way to living up to his prince credentials.

"Alex Kidd was tremendously popular here," Marcelo tells us. "You can't talk about old games in Brazil without mentioning Alex Kidd. It wasn't unusual to see him on magazine covers and we always directly associated him with Sega until Sonic appeared on the scene."

The opposite of how things played out for Alex in North America, getting to Brazil before Nintendo gave Sega and its mascot a significant edge.

"Sega games were sold in Brazil since 1989 but

Nintendo had only arrived here in 1993. For four years we had Sega ads everywhere and no (official) sign of Mario, NES, Super Nintendo or Game Boy. For political reasons Brazil was a paradise of obsolete technology – old cars, old computers, old anything-you-can-imagine. That started to change in the late Eighties and early Nineties. Dictatorship in Brazil was gone and our country became more receptive to foreign technology. So we were still playing our old Atari 2600 games and suddenly the Master System appeared on TV and in magazine advertisements. It was clearly new, different and much more advanced than all the gaming systems available in Brazil. Every kid wanted a Master System for Christmas in 1989."

For a long while officially licensed Nintendo products weren't available in Brazil. This led to many Brazilian Famiclones appearing after the Master System's release, with gamers keen to obtain more of these advanced looking

Alex Kidd In HD World

We chat to Marcelo Barbosa about his progress in updating Alex's best adventure

Why did you decide to create an HD remake of *Alex Kidd In Miracle World*?

Alex Kidd HD is not exactly a remake; it's a ROM hack running in a sort of mutant Master System that is able to display images with four times more resolution. Aside from my new graphics, everything else is the original stuff created by Sega. Last year I read about an emulator called HiSMS that turns the SMS into this mutant console capable of displaying hi-res graphics. I chose *Alex Kidd In Miracle World* as it's a small, simple game that I'm very familiar with. Also, I never had a SMS but *Alex Kidd* was also the first post-Atari game that I really remember enjoying a lot – so nostalgia influenced me as well.

What has been the most challenging/ rewarding part of the project so far?

Bugs on HiSMS do their best to make you give up, so the first challenge is to not turn crazy. The other two concern the graphics.

I'm doing all the research I can to respect the original Japanese character designs, collecting all the *Alex Kidd In Miracle World* art I can find to help me with the designs for the more obscure characters. The final challenge has been the backgrounds because I'm definitely not good at drawing them. The most rewarding part is when HiSMS turns all confusing image files into a single, working ROM. Suddenly your drawings come alive, jumping and fighting inside this incredible Super Master System.

Do you plan to release the game once it is finished?

This is the most frustrating part of this project. People are much more interested in *Alex Kidd HD* than I could ever expect, but I can't release it because the game belongs to Sega and I don't want to get in trouble. The project is about 65 per cent complete and I'm facing it as a proof of concept, a showcase of HiSMS's capabilities. Many companies could easily create HD updates of their old games. I bet projects like these would be much cheaper than a full remake, especially if they still have their old assets around.

» The HD update of *Alex Kidd In Miracle World* is looking very nice indeed.

» It's currently unclear if Marcelo's project will ever have a full release.

videogames. As a result, Nintendo also found popularity in Brazil, although Mario became known as a mascot for something else.

"Mario became very popular in Brazil as well, but he was essentially a mascot of pirate games," explains Marcelo. "He had strong presence in gaming magazines but there were no posters or promotions showing him in actual stores. The first Brazilian Nintendo commercial (1993) is weird because it sort of assumes that people know who Mario is due to piracy. So in these first years I honestly believe that Alex Kidd was as popular as Mario – probably due to excellent, omnipresent marketing campaigns by Tec Toy (Brazilian company that made and sold licensed Sega products) and the lack of interest by Nintendo in the Brazilian market, that was until they realised that Sega/Tec Toy was making a lot of money here."

In most parts of the world Alex quickly became forgotten about once the Mega

Drive was released and *Sonic The Hedgehog* cemented the machine's North American success story.

At one time though, Sega and Alex were both underdogs, and it's perhaps for this reason why many Sega fans seem to have affection for the character. Alex may not have made the mascot major leagues but he still left an impact on many gamers, especially early adopters of Sega. It's also worth noting that he's done pretty well to leave any sort of mark at all, given he hardly left behind the most impressive of gaming legacies: one classic platformer, a decent but little-known coin-op sequel, an action/RPG that was a re-skin of another game and an mediocre import racer, before finishing on a disappointing 16-bit debut and an fun action-platformer that owes much to another popular Sega franchise.

So why is Alex so fondly regarded by Sega fans? "He's a tragic underdog hero," answers Kurt. "Like that scene from *Segagaga* where you find him all washed up, working videogame retail; he was a fun character

» *Alex Kidd In Shinobi World* remains fantastic fun to play to this day.

» If only Alex Kidd had appeared in more Sega crossovers…

that was pushed aside for Sonic, who was cooler and hipper, and thus exponentially more popular. It's hard not to feel bad for him. Also, while I've known many people that hate *Miracle World* due to its slippery controls, I think it holds up well as one of the better games for the Master System. It was clearly trying to compete with *Super Mario Bros*, but rather than ripping it off, they created something wholly unique."

Special thanks to Kurt Kalata and Marcelo Barbosa for their help with this feature and invaluable insight.

IN THE KNOW

» **Name:** After Burner
» **Released:** 1987
» **Publisher:** Sega
» **Developer:** Sega-AM2
» **Price:** £250-£500
» **By The Same Developer:**
  Sega Rally
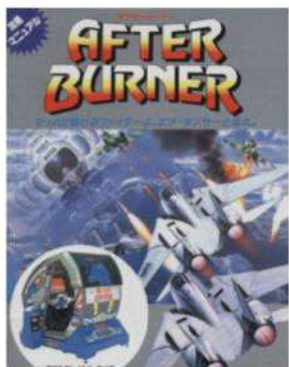
COIN-OP CAPERS

#3 After Burner

We take a definitive look back at a classic arcade game and unravel its brilliance with the help of those who know it best

For the benefit of those who've never piloted a supersonic plane, the afterburner is the bit found at the back that resembles the glowing eye of Sauron. It provides a temporary influx of thrust to the pilot, and enables them to take off and evade nasty enemy pilots who are out to kill them. Basically, it helps fast things go even faster, and thus serves as the perfect title for one of the most exhilarating arcade experiences ever conjured up by those crazy bods at Sega.

After Burner was one of the earliest games to come from Sega gaming maestro Yu Suzuki and his AM2 R&D team. Throughout his career, Suzuki has always shown a passion for looking to Western cultures and influences for inspiration in the premise, themes and characters in his games. This was evident in *OutRun* and *Hang-On*, which were both released two years earlier than *After Burner*. But it was *After Burner* that really showcased his motif so concisely.

It takes all of two nanoseconds to make the connection that *After Burner* was inspired by the 1986 action classic from Tony Scott, *Top Gun*. The plane you piloted was an F-14 Tomcat, the soundtrack was similarly rock-based, and the game's setting and colours – the crisp blue sea and glorious-looking visuals – had a perfect Hollywood veneer to them. But what it was that made *After Burner* truly great was that it was a flight simulator in the very loosest sense of the term. The controls were easy to pick up, the combat was uncomplicated, and the gameplay was exhilarating. The polar opposite of *After Burner* is a befuddling flight simulator,

packed with a weighty instruction manual forcing you to wade through 300 paragraphs of nonsensical flight jargon just to learn how to get out of the game's start menu.

But then *After Burner* was also a bit of an oddity, in that it saw a sequel that basically rendered the original game redundant. Released a few months after the original game, *After Burner II* was more a refinement of the original game and boasted nominal differences. It ramped up the level count from 18 to 22 – there are actually 23 stages but the final stage is a weird automated landing animation – and added more enemies and gave them the ability to chase your plane's tail. The game also gave players throttle control, enabled them to speed up and slow down and force those pesky enemy planes to whizz past and be wide open for a kill. Other differences in the sequel included the inclusion of air and on-ground refuelling and rearming points, odd vehicular cameos from the Ferrari from *OutRun* and the motorbike from *Hang-On*, slightly different music, and the ability to fire the plane's missiles more frequently, all working to make the game a bit easier.

When *After Burner II* had finished confusing its fans in arcades it went on to spawn a series of spiritual sequels. Ask us and we'll tell you that the Sega arcade games *G-LOC* and *Strike Fighter* are all essentially in-cockpit spins on *After Burner*, and *Sky Fighter* a polygon re-imagining. And enforcing this belief, Sega actually used the *After Burner* moniker for the title of a game that was essentially just a Mega-CD port of *Strike Fighter*: *After Burner III*.

It becomes apparent that over the years Sega was unnecessarily trying to bridge that gap between arcade and simulator with its air combat series while nervously trialling each formula without the *After Burner* name. Sega would eventually come to its senses, though. The last two games in the series not only have the *After Burner* name – *After Burner Climax* and the PSP's *After Burner: Black Falcon* – but also have gameplay that is far more reminiscent of the first two classic arcade games. ✱

COIN-OP CAPERS
THE EXPERT

David Hernly, a longtime *After Burner* fan, was recognised by Twin Galaxies as the record holder on *After Burner II* earlier this year. What is it about this series that keeps him hooked?

■ Do you remember the first time you saw *After Burner* in an arcade and what impressed you about the machine at the time?
I first played *After Burner* at Putt-Putt Golf & Games in Richmond, Virginia. They had the deluxe sit-down version right inside the front door. I spent a lot of time playing it during Super Saturdays, at which they would put a lot of credits on all the machines so it was practically free-play. The motion of the deluxe cabinet was an obvious wow factor, but the speed of the game was so cool for back then. Throw in the rocking soundtrack and it was a tour de force in its day. When I came upon an *After Burner II* upright 20 years later I snapped it right up. I'd love to have a deluxe cabinet but it's so large that it's not practical for a home.

■ What's your favourite stage in the game, and which is the trickiest to complete?
My favourite has always been Stage 6. It's when the game really starts to get harder, and it's also my favourite music track from the game. If you watch me play you'll usually catch me tapping my foot to the beat. As for the trickiest, I always get tripped up by Stage 10. It always seems to give me fits as the game starts throwing things at you from all directions, so you have to really be on your toes.

■ Do you remember the first time you completed *After Burner II*?
It was during a Super Saturday within the first month Putt-Putt got the game in. Let's just say I used a lot of continues back then. When I landed back on the carrier I thought it was the coolest thing. Aside from *Dragon's Lair* and *Space Ace* it was the only game I have ever 'finished' at the arcade so I was very pleased.

■ Which home conversion of *After Burner* is your favourite and why?
My favourite is the *Sega Ages* version for the PlayStation. It was a nice 3D upgrade to the original and was a great precursor to *After Burner Climax*.

■ How good are you at similar Sega arcade games such as *Space Harrier* and *Thunder Blade*?
I'm pretty good at all of the Sega games of that era, and I would include *OutRun* with those two as well. I played a lot of other Sega titles back then but was always drawn to these because of their combination of speed, visuals and sound. It was a mixture you just didn't see in other titles of the time.

■ Which version of the cabinet do you prefer playing and why?
I like both but for different reasons. If I'm playing for fun I prefer the deluxe sit-down for the movement and engulfing sound. If I'm playing for score

» The upright might not be as impressive as the sit-down, but it's better for high scores.

Magic Moments

We duck and roll through some of the best bits from Sega's airborne classic

Take Off
The iconic opening of *After Burner* begins with the player's F-14 fighter being launched from an aircraft carrier.

Fireball
The death sequence in *After Burner* is particularly gratuitous and sees your plane transform into a ball of flames.

Cameos
After Burner II features two cameos. One is the *Hang-On* motorcycle, and the other is by the *OutRun* Ferrari.

Chasin' Tail
In *After Burner II*, enemy planes can chase you. Slam on the air brakes to force them into your crosshair, then boom!

Fin
The finale to *After Burner* serves up yet another *Top Gun*-ism as our gallant pilot is given a hero's welcome by his comrades.

I always prefer the upright so I can focus on the game.

■ **Have you played any of *After Burner II*'s formal sequels like *After Burner Climax*, or its informal sequels like *G-LOC*, *Strike Fighter* or *Sky Target*? If so, what's your impression of them?**
I've played them all. Here are my thoughts on each…

G-LOC: A fun shooter, but since it didn't feature that sense of sheer speed that *After Burner* had I always thought the gameplay felt slow.

Strike Fighter: Always reminded me of a Sega version of Namco's *Ace Combat*. Gameplay was short and the pace was slow. It never held my attention.

Sky Target: While it was clearly an attempt to remake *After Burner*, it just didn't capture the same magic of the original. The design of the game had some clear flaws and I think it's the least fun of this list.

After Burner Climax: Without a doubt this is by far the best of the 'sequels'. It's the original gameplay with a few slight updates and it works. It's a wonderful update to the original that even includes a modern version of the original soundtrack.

■ **Can you tell us a little more about your impressive *After Burner II* record? How did you manage to reach such a remarkable score?**
I own an upright *After Burner II* cabinet and practise on it at home. I have always played for the record at Funspot in New Hampshire, because they have both the upright and the deluxe sit-down. I achieved my current score in April of this year while attending the Funspot XI tournament. I also have no plans to rest on my current score, so look for more news at Funspot XII.

■ **Why do you think *After Burner* has remained such a popular game among retro gamers?**
The deluxe sit-down version has always remained beloved because it was the first of its kind. The cockpit-style sit-down cabinet had been around for years, but never with the range of movement that *After Burner* had. Sega, of course, later went on to create the R360. ✱

DAVID'S SURVIVAL GUIDE

The expert *After Burner* player reveals his personal tips and strategy to mastering the game and racking up those high scores

1 ■ **DON'T GET GREEDY!**
Focus more on what enemies are coming at you and you'll last longer.

2 ■ **LET 'EM FLY!**
You have unlimited bullets for your Vulcan cannon, so hold that trigger down the whole time. You can catch ships coming and going easier if you do.

3 ■ **LEARN THE FORMATIONS**
Each wave of enemies has specific formations you can pattern. If you learn them it will help you rack up the points.

4 ■ **TEACH YOURSELF**
Teach yourself to listen for the 'Fire!' sound cue, or when you see the 'Lock On' light below the screen. Fire a missile every time you do and you'll always score a hit.

5 ■ **USE THE WHOLE SCREEN**
To avoid the missile attacks, learn to fly around the entire screen and don't stay still. If you stay in one spot, they'll get you!

6 ■ **THROTTLE WITH CARE**
Speeding up is necessary in later levels, but the faster you go, the faster the enemy missiles come at you.

7 ■ **BEWARE THE SMOKE**
Take care to not flood the screen with too many missiles. The smoke trails can quickly fill the whole screen, preventing you from seeing missiles, enemies, obstacles and other things coming at you. You can't avoid what you can't see, after all.

THE SEQUELS

We look at the debatable *After Burner* sequels that Sega spawned
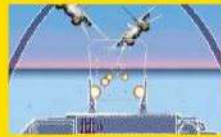
G-LOC: Air Battle
Released: 1990
G-LOC – which, according to the game's marquee, stood for Loss Of Consciousness by G-force – was essentially a sequel to *After Burner* but with the action viewed from inside the cockpit, unless you're forced into evasive action, in which case the perspective switches to third-person. Flying an experimental aircraft, you embarked on various missions, and your plane also had a damage bar.

Strike Fighter
Released: 1992
Released in Japan, *Strike Fighter* was essentially a sequel to *G-LOC*. It ran from the same Sega Galaxy Force engine, so shared similar graphics and also kept the same perspective, but ditched the objective-based missions in favour of more *After Burner*-style affairs. The game was ported to the Mega-CD as *After Burner III*. *Strike Fighter* also saw a sequel in 2000 on Naomi hardware.

Sky Target
Released: 1995
Running on Sega's Model 2 hardware, *Sky Target* marks the first polygonal entry in the series. It's also the first to offer branching stages and, other than the SMS port of *After Burner*, boss fights. While *G-LOC* and *Strike Fighter* don't hold a candle to *After Burner*, *Sky Target* gives a far worse performance. Its lethargic gameplay didn't stop it from later seeing a release on the Sega Saturn and PC, though.

After Burner Climax
Released: 2006
Running on Lindbergh hardware, this polished arcade update is one of the best in the series. Beautiful, crisp graphics and vistas, insane combat and, more essentially, a sense of speed meant that *Climax* ticked all the boxes. Add to the mix a new slow-mo 'climax' mode, and you basically have the *After Burner* equivalent of *OutRun 2*. Shame it never found a home port.

After Burner: Black Falcon
Released: 2007
An okay stab at a less arcadey version of *After Burner*, hence the story and allowing you to pick the mission order and unlock more as you go. It offers a new air-to-ground weapon and licensed planes, plus it retains the handy barrel roll manoeuvre to evade incoming fire. *Black Falcon* holds quite a bit of variety but doesn't quite live up to the heritage of the first two games.

We speak with IT consultant and arcade owner Shaun Meldon to ask him about how he's getting on with his rolling restoration of a deluxe *After Burner* cabinet

My name is Shaun Meldon. I'm an IT consultant who loves retro arcade games and I also co-run Arcade Barn (**www.arcadebarn.co.uk**). *After Burner* is one of my favourite games for its mix of fast, detailed graphics, pumping soundtrack and the ability to make your plane spin and loop. I bought the game from a local operator. It was still working in a holiday park, but it needed repairing, so a friend Aran and I badgered the owner into selling it to us. It got loaded into a trailer by a forklift and, when we unloaded it, it broke its wheels just getting it into the barn! The game was still running when we got it and it's become a rolling restoration now.

PCB

To our amazement this was still going strong with no issues under a pile of dust about 2cm thick. It's a big board with even more wires and auxiliary boards. Frankly we are too scared to touch it just in case it went wrong, but we air dusted it and cleaned all the cables so it looks much nicer now. On the whole I find these types of boards are best left alone if they are working. The main board all tucks under the main body of the cab, snug in its own compartment.

HYDRAULICS

The main up and down movement is created by a simple motor with a large wheel with a rubber tyre. The cab rests on this and the wheel moves the cab up and down by turning. There are auxiliary wheels that also help this movement, and we need to get some more tyres as ours are nearly worn out. The sideways movement is another motor that creates the movements and shaking when you crash. We had to spend a huge amount of time trying to clean off the grime just so we could see the motors.

THE SEAT

The seat you climb into is covered with a lovely blue textured carpet – well that's what it feels like – trimmed with nice chrome edging. It has nice side art but is fairly plain but good at its job of keeping you in as your hit plane crashes into the sea and you're shaken around to simulate a crash.

HANDLE

The flight handle has taken some stick but is still hanging in there. Someone in the past had obviously done a little repair work on it as the missile and machine gun buttons were wired back to front, so we rewired it back to what it should have been. Getting the screws out of the handle is not easy after they had been stuck with sweat and other questionable substances. The start button was replaced too as it had been broken over the years.

MONITOR

This one still has its original monitor and it's still really sharp. It did need a clean, though, as it was caked in a massive layer of grime. Trying to get at it is not easy, as you have to take all the bezel off and remove the glass covering the monitor. The glass had a large crack in it so we had a special piece cut just for us.

ARTWORK

Considering that it's 22 years old, the artwork was in very good condition. The logo on the front is nice and fresh looking and screams, 'This is a big cab'. The sides still have the pilot graphics and have stood the test of time. The back plastic is all in one piece and looks very nice. And there is very little that is worn apart from where the plastic skirts have brushed against the cab as it moved up and down.

COIN MECH

Not a big fan of coin mechs as when you're running it for fun they have a tendency to stick, clog up or just stop working. We fitted a credit button to the coin tower so that when people come to play it at our open days they can just press it to get a credit.

MARQUEE

The marquee on an *After Burner* deluxe is huge. We had to rewire ours with a new kit as it had burnt out, but this allowed us to use UK 240v parts and do a little rewiring rather than use US/Jap 100/120v equipment, which is harder to get and more awkward. Sadly ours has been painted a little at some point in the past to stop the marquee artwork slowly breaking up due to heat. We are on the lookout for another, so if any readers out there know where we can get one please let us know.

DEVELOPER Q&A

We chat to Darrin Stubbington, creator of the US C64 version of *After Burner*

■ How did you land the job of converting *After Burner*?
I was working in Silicon Valley for a company called IDG-SEGA. My job was to convert PAL to NTSC on Commodore 64 games. This job involved not only making all the timing adjustments, but speeding up parts of the game and improving portions as needed. I also then created a disk version, as the US C64 did not use tape drives. When we received the PAL version of *After Burner*, there was not much that could be done to improve it without a complete rewrite. IDG decided that we should create a new version.

■ There were two distinct versions of *After Burner* on the C64: yours and the UK port. Why was that?
The PAL version was awful, and not representative of the coin-op in very many ways. The sound was terrible, and everything about it was horrid.

■ Had you played the game before, and were you a fan of the arcade game?
Yes, I spent a lot of time in arcades and was a big fan. *After Burner* was always a thrill to play. The sense of speed was great, and it was very cool to blow stuff up!

■ Did you receive support from the original developers?
No, we did it from scratch.

■ Have you played the other 8-bit conversions and, if so, which do you feel was the best?
The best other version was probably on the Sega Master System because of the nice frame rate. However, that version is even less like the original than the PAL C64 version. Obviously I'd like to think my version best represented the original!

■ How long did the conversion take you and how many people worked on it?
It took about six months, and was worked on by my room-mate at the time, Scott Blum, and myself. I did graphics and some layout but was actually working on PAL to NTSC conversions of many other Sega arcade games at the time in addition to this one.

■ What do you think is the most difficult aspect about converting a game?
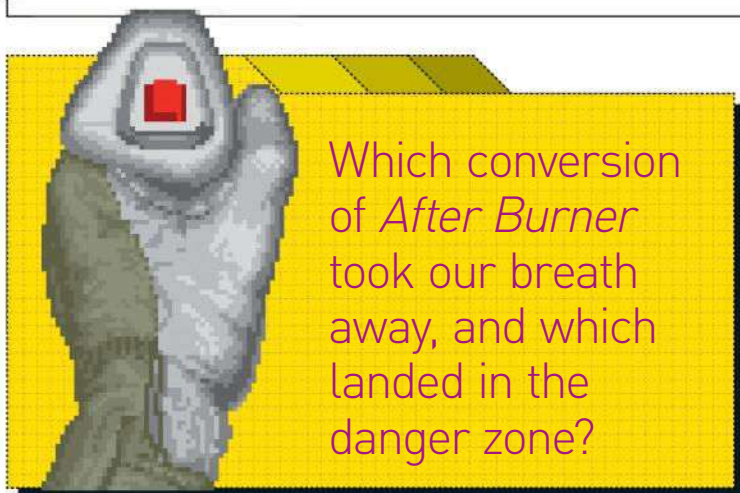Frame rate and sprite multiplexing and faking things with shifting characters. The coin-op at that time was about equal to an Amiga or Atari ST, so shoe-horning that into the poor old C64 was quite a challenge. In the end we did the best we could to just recreate the mood of each level, hoping that arcade fans would forgive us for any missing items – there's a lot.

Which conversion of *After Burner* took our breath away, and which landed in the danger zone?

01

02

03

01. Master System

This is the first home port of *After Burner*, and it's also probably the best-looking 8-bit port. But it's not without issues. The looping music has the power to fry brain cells, and there's a rather large gameplay flaw too: stick your plane to either corner of the screen and the enemy bullets can't touch you. It also features an end boss that wasn't in the arcade.

02. NES

Both *After Burner* and its sequel were released on the NES. The first was developed by Tengen for the US, while the sequel, which is the better version, was handled by Sunsoft and released for the Famicom in Japan. Both are acceptable ports but are prone to heinous bouts of flickering. The F-14 also seems to roll sporadically, thus locking its movement and leaving it open for attack, making the gameplay very frustrating.

03. Mega Drive

Developed by third-party studio Dempa, this is one of the best Sega arcade conversions to grace the Mega Drive. It looks great, scrolls quickly and feels faithful to the arcade game. You also have the added bonus of throttle controls, being able to tweak difficulty, configure the controls and listen to the soundtrack in the options menu. This is a sterling effort and one of the best versions out there.

04. ZX Spectrum

What this port, written by Keith Burkhill, lacks in colour it more than makes up for in speed. Overall it feels incredibly quick, and the music is pretty good too. This version includes the refuelling points and the chasing enemy bogeys too. It's also one of those versions where the F-14 fires automatically, which can render the experience less exciting.

05. C64

Two versions of *After Burner* were released for the C64: a European version and a US version written by Darrin Stubbington and pal Scott Blum. Our version is the worst there is, with messy graphics and gameplay to boot, but the US version is superb. Hampered only by sparse scenery and more sedate gameplay, the US one really excels in the visuals and gameplay stakes.

06. CPC

The CPC version is pretty much identical to the Speccy conversion, albeit more colourful. Annoyingly, in this port you can only seem to hit enemy planes when they're within heavy petting distance. This, plus the fact that your plane is given a ridiculously small area to manoeuvre in, makes dodging missiles a real misery.

07. PC-Engine

Reprogrammed by NEC, this is a superb version that does a fantastic job of recreating the arcade game. It boasts gorgeous graphics, excellent sound and quick gameplay. It also lets you tweak the difficulty, invert the controls and – rather oddly – tweak the colours too.

08. 32X (Best Version)

Going by the somewhat showy title of *After Burner Complete*, this 32X port is widely cited as the definitive home version of *After Burner* – obviously ignoring the *Sega Ages* version on the Saturn and the freebie in *Shenmue II*, which are nigh-on arcade perfect and boast analogue controls. Developed by Rutubo Games, this is a faithful port that boasts great sound and visuals.

09. Amiga

Like the C64, the Amiga received two ports: a European one ripped from the Atari ST version with minimal differences, and a superior US port that trounces them both. Heed our advice and ignore the Activision ports at all costs.

10. MSX (Worst Version)

This is another Activision/Speccy conversion. It has all the levels, including refuelling sections, and there is missile lock too. The monochrome graphics look far messier than the Spectrum port, but when the game is finished, you do get a decent reproduction of the arcade ending.
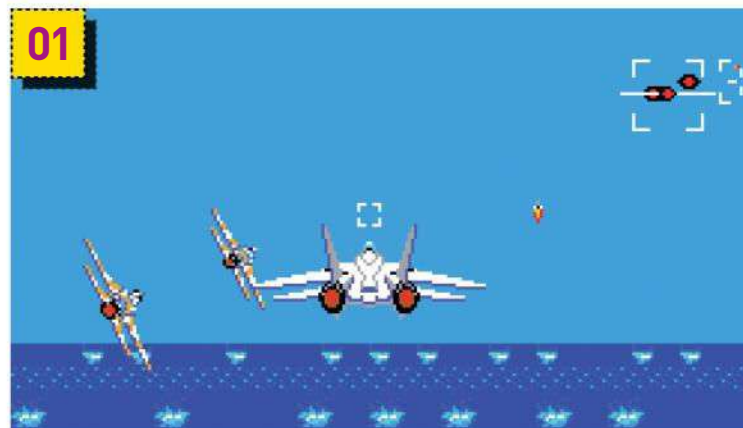
11. GBA

Forming part of the *Sega Arcade Pack*, this ambitious portable version, which was based on the original version of the game, rather than the sequel, is sadly a poor effort. While it certainly looks impressive and the action feels nippy, like the *Space Harrier* conversion we reviewed a few issues back, the arcade's twitchy gameplay doesn't really respond well to the GBA's tiny buttons.

12. PlayStation 2

Forming part of Sega's *Sega Ages 2500* volume, which updated many classic arcade games, *After Burner* was one of the better games to make the transition. It's a pretty faithful re-imagining and gives the player a choice between three aircraft.

13. Atari ST

There's not much in it, but we reckon the ST version is better than the Amiga, and it's believed that the Amiga version was simply a port anyway. Like all the lacklustre Activision ports, it doesn't do the arcade game justice, but it remains one of the company's better efforts.

SONIC

BOOM:
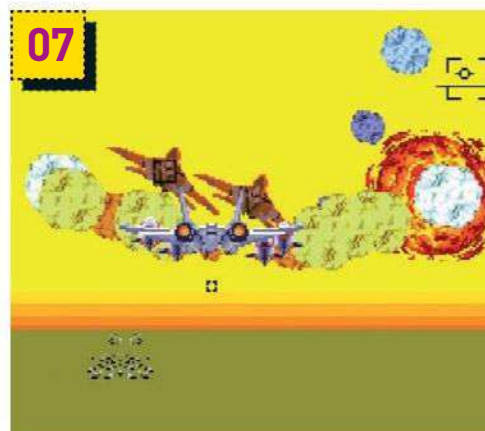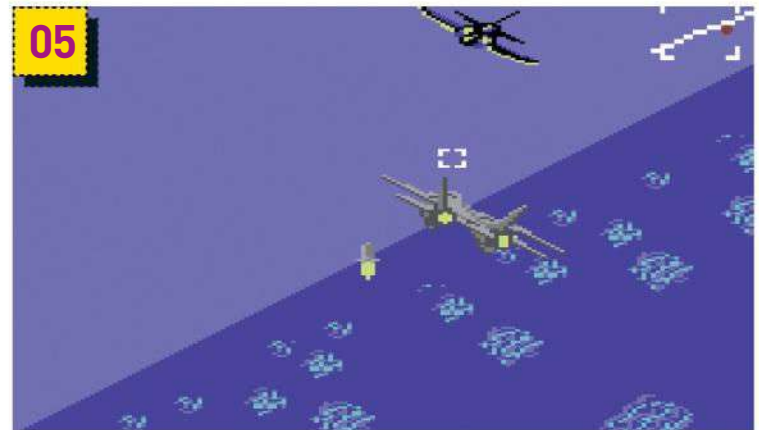
The Success Story Of Sonic The Hedgehog

Sonic the Hedgehog is one of the most recognisable mascots of all time. He's also had his fair share of ups and downs. Here we chart the Blue Blur's story so far and talk to many of the designers charged with keeping the hedgehog spinning for over two decades

Is it possible to write a history of Sonic without mentioning Mario? In theory, but you'd be foolish to try. Though created a decade later, Sonic's existence hinges on that of Mario, and the two have been rivals ever since. Sonic's history is therefore also Mario's, and even platform games as a whole.

The sheer brilliance of *Super Mario Bros* put a Nintendo Entertainment System into more than 60 million homes worldwide, while Sega's 8-bit equivalent, the Master System, had to make do with just 13 million. There are several reasons for this disparity, of course, but Mario was one of the biggest reasons and Sega knew it. Launching its 16-bit system, the Mega Drive, in 1988, Sega had a two-year head start on the Super Famicom/SNES, but even with such an advantage it struggled to keep up with the ageing NES.

Sega's expertise, right through the Eighties and beyond, focused on its coin-op games. This was where Sega ruled videogames, its comfort zone, and the company certainly managed to attract a sizeable fan base just by being able to convert its greatest hits to the home. But the tastes of console gamers gradually shifted throughout the mid to late Eighties. NES games like *Super Mario Bros*, *The Legend Of Zelda*, *Mega Man*, *Castlevania* and *Final Fantasy* represented a shift away from the instant

"Everything about Sonic The Hedgehog was designed to make the game play quickly, keep momentum up, keep moving at top speed"

gratification of the arcades and towards a more protracted experience that gamers could spend hours, days and weeks absorbed in.

Sega remained extremely successful in the arcades, of course, so its home conversions also remained a core part of its business, especially since they were relatively cheap to produce and sold in large enough numbers. But the Master System and Mega Drive needed original games, unconnected to the coin-ops. These came slowly but surely. Games like *Phantasy Star* and *Streets Of Rage* were great console exclusives that represented a step in the right direction, and Sega even published some wonderful platform

games in the shape of *Psycho Fox* and *Alex Kidd*, but these did little to slow *Mario*'s astronomical rise in popularity. By 1990 there had been four incredible *Mario* platform games, each one somehow more ingenious than the last, to the point where for many people Mario and videogames were one and the same thing. Sega still needed its Mario.

Perhaps it's a sign of how things had changed by the Nineties, or maybe it shows just how different Sega and Nintendo really were, but Sonic's origins were actually very different to those of Mario. The latter was famously created out of necessity. The limitations of 1981's visual technology meant that it was difficult to even create a character that could be recognised as a person, so Mario became a short, fat plumber with a moustache not because Shigeru Miyamoto had any urge to tell a story about a man in dungarees but because that

was all the technology would allow. By 1991, however, technology had progressed to the point where just about any character could be represented on screen, so instead of creating a character out of blocks on graph paper with a particular type of game in mind, Sega simply started with paper and the desire to make a character of any kind.

In what is now a part of the company's legend, Sega set several of its best designers to work, challenging them to create a new character that could become a new type of hero for Sega and a true rival to Mario. Several characters were created as a result of this exercise, many of which were used in later games, but the winner was a little blue hedgehog, drawn by Naoto Oshima, one of the designers on the first two *Phantasy Star* games.

Originally named Mr Needlemouse, Oshima's hedgehog was coloured the same blue as the Sega logo, which only seemed appropriate since the character was designed to be the company's new mascot.

Designed primarily to appeal to an American audience, he also featured the colours white and red, though Oshima puts this down to coincidence, citing Santa Claus's colour scheme and the belt across Michael Jackson's jacket on the cover to *Bad* as the inspiration for Sonic's shoes. Finally, Oshima wanted to imbue his character with a 'can do' attitude, inspired by television footage of the then Arkansas governor Bill Clinton. In the original design, Sonic also had fangs and played in a rock band, but these elements were removed under the advice of Sega America's Madeline Schroeder.

Sonic's friendly but cool character design was certainly effective, but nobody ever played *Super Mario Bros* because they liked the character. At least we hope they didn't. Sonic needed the best kind of platform game, and he got one from Yuji

Must-Have Merchandise

There's been an unquantifiable amount of Sonic merchandise produced in the past 20 years. Here's our pick of some of the most interesting examples

1. BOARD GAME

MB Games licensed tons of videogame properties for its board game business in the Eighties and Nineties. The *Sonic* one is typical of the line, vaguely translating the videogame experience into a fun but uncomplicated board game.

2. STYLUS

Released as a pre-order incentive for DS RPG *Sonic Chronicles: The Dark Brotherhood*, this collection of three styluses allows you to decorate your DS with Sonic, Knuckles and… uh… someone we don't recognise.

3. SONIC RACING SYSTEM

Being focused on speed, Sonic has appeared in a bunch of racing games, both video and physical. This one is a lot like Scalextric, only with a hedgehog and a fox instead of cars.

4. PAPERCRAFT

Created by Sega to celebrate Sonic's 15th anniversary in 2006, this model re-creates Green Hill Zone in colourful, papery style. Get it from: **sonic.sega.jp/SonicChannel/enjoy/papercraft/index.html**

5. CONFUSING BACKPACK

You might have a hard time finding this bootleg backpack out in the wild but it's sure worth the effort. Just look at how many confusing, incongruous elements it packs into a single item.

Naka and Hirokazu Yasuhara, Sega programmer and game designer respectively, who joined with Oshima to form Sonic Team and develop *Sonic The Hedgehog*.

Yuji Naka was practically legendary at Sega for his incredible programming ability, and his influence over *Sonic The Hedgehog* cannot be overstated. Naka was a great fan of *Super Mario Bros* but wanted to play something much faster, so that was the direction that the project went

in. Everything about it was designed to make the game play quickly – quite ironic given the slow speed of hedgehogs. There are the loop-the-loops and the springs, all good for keeping momentum up, and the gameplay flowing from left to right, while Sonic's ability to curl into a spiky ball mid-jump allowed him to hit an enemy, eliminate it, and then keep moving at top speed.

The resulting game was pure Sega. Almost blinding in its use of colour, thrilling to play and totally unwilling to take itself too seriously, it was a true pleasure that effortlessly appealed to anyone who tried it and had a very likeable character as its star. Tyler Sigman, lead designer on 2006's *Sonic Rivals*, recalls: "I played the original *Sonic* on Genesis when I was a teenager, and like most people, I loved it! The speed, graphics and character were great. Like *Mario* and *Mega Man*, *Sonic* was really memorable platforming. It seems such a small thing now, but Sonic's attitude really did stand out from a lot of other characters at the time," he says, citing the way Sonic would impatiently tap his feet when left alone as an example of the hedgehog's cool factor.

Christian Senn, director of the cancelled *Sonic X-Treme*, is also a fan of Sonic's famous attitude but takes the time to praise the exciting, kinetic gameplay of the original game. "I liked Sonic's look, his attitude, and the way it felt to zoom around the playfields," he says. "I liked the look and functionality of the enemies, the fact

Sonic Timeline

A quick guide to Sonic's most memorable games… and a few others

Sonic The Hedgehog 2
Multi | 1992

This time, players found themselves immersed in a game that had been improved in every conceivable way. It was also the first console game to have a worldwide launch when Tuesday 24 November 1992 became known as '*Sonic 2*'s Day'. Geddit?

Sonic The Hedgehog
Multi | 1991

One year after the competition to find a Sega figurehead, Sonic's first outing was unveiled. Created by Yuji Naka, *Sonic The Hedgehog*'s mixture of speed and graphical finesse helped to establish the Mega Drive as a serious contender in the hearts of gamers the world over.

SEGASonic The Hedgehog
Arcade | 1993

With the home market stitched up, Sega decided to try its hand in the arcades. Trackballs at the ready and two new characters to play with failed to inspire much interest. Poor distribution and the fact that the game deviated from the normal gameplay didn't help either.

Sonic CD
Mega-CD | 1993

New hardware meant that there really was only one character to sell it to the masses. Basically, this was *Sonic The Hedgehog 2* with a time travel element. For what it's worth, the game did try to make use of the CD-ROM, with much-improved animation and sound.

Sonic Chaos
Game Gear | 1993

Handheld gamers rejoiced at the knowledge that Sonic was back on the Game Gear. This time you could play through the game as Tails, who had been absent from previous Game Gear outings, as the game revealed more fully what the handheld was capable of.

"Following directly behind Sonic at all times, Tails' ginger blur added a nice visual flourish to the game's colourful rollercoaster ride"

that they provided some challenge and offered a break from the rush of speed. I think what I enjoyed most of all about the game was the balance between puzzles, speed, combat and collection. The physics and feeling of interaction really felt great."

The game and its star became synonymous with Sega and helped propel the Mega Drive to sales of around 40 million, only 9 million short of the SNES – a minuscule gap compared to the 47 million that separated the Master System and

NES. *Sonic The Hedgehog* was so popular that it inevitably became a huge brand for Sega, starting, of course, with sequels. Four such sequels followed on the Mega Drive and Mega-CD alone, not to mention all the spin-off games and Master System and Game Gear exclusives that also appeared in the same period. Aside from some tiny proportional changes, Sonic's appearance remained the same in the sequels. And why wouldn't it? Sega pretty much got the design spot-on from the beginning. Plus,

the company's artists probably had their hands busy designing the multitude of new characters that the publisher somehow seemed to think were so necessary.

Tails wasn't so bad, admittedly. In fact, his inclusion in *Sonic The Hedgehog 2* is one of the single most underrated features of the series. Following directly behind Sonic at all times, his ginger blur added a nice visual flourish to the game's colourful rollercoaster ride. And then there's the fact that a second player could plug in their own pad and take control of Tails, happily jumping around behind Sonic and helping out with enemies, but without the risk of failure. It's the sort of feature that games all too rarely employ, allowing a younger or less skilled player to join in and have fun without any frustration, and it's something that the *Mario* series has only recently begun to experiment with in *Super Mario Galaxy*'s co-star mode.

Sadly the same can't be said for the other characters introduced through *Sonic*'s early years. The likes of Knuckles and Amy Rose signified the start of a worrying trend toward unnecessary, annoying new characters that would only get worse as the years went by. Though the early to mid Nineties certainly has its fair share of terrible sidekicks. Anyone remember Mighty the Armadillo, Espio the Chameleon or – ahem – Nack the Weasel? No, thought not. Despite the invasion of the world's most annoying characters, *Sonic 2* and *3*, *Sonic & Knuckles* and *Sonic CD* all proved to be brilliant platform games and all played their part in catapulting Sega's little blue hedgehog into popular culture as a whole. Countless merchandise tie-ins

Developer Quotes

"Like a *Super Mario* game on steroids, *Sonic* was a wonderwall of hyperkinetic play for the ADHD generation. The feeling was supersonic… sans gin and tonic!"

Eugene Jarvis, creator of Robotron: 2084 and Defender

» *Sonic The Hedgehog 2* introduced Tails, who was fine on his own but started a worrying trend.

Sonic Spinball
Multi | 1993
As popular as Sonic was, *Sonic Spinball* was an attempt to cash in yet further on the blue speedy one. Once again, deviating from what gamers expected proved its undoing, and the fact that this was a deeply average game didn't help matters.

Sonic Drift
Game Gear | 1994
What Game Gear fans needed was a *Mario Kart* game, or so Sega decided. A *Mario Kart*-style racer would have been ideal. However, what Japanese gamers got was a slow, dull and uninspired racing game that was never released outside Japan, thankfully.

Sonic The Hedgehog 3
Mega Drive | 1994
A return to form for Sonic with this very impressive outing that not only looked beautiful but also added a greater depth of gameplay than had been seen previously. Of special note is that this is the first *Sonic* game to feature a save feature, thanks to the built-in battery.

Sonic & Knuckles
Mega Drive | 1994
Picking up where *Sonic 3* left off, this is more of the same great gameplay lifted from its predecessor. However, thanks to the use of Sega's lock-on technology, further gaming bonuses could be attained by simply connecting the cart to other *Sonic* games. Genius.

Sonic Triple Trouble
Game Gear | 1994
After a glut of ill-conceived Game Gear outings, the ickle Sonic was back on form and back to doing what he and Tails did best – collecting rings, emeralds and racing through bonus stages. As Game Gear *Sonic* games go, this was mightily impressive.

followed, including a total of four different animated TV series, a movie and enough comic books to destroy an entire rainforest. And there were more games too, Sonic proving so popular that Sega felt it could drop him into any old game to boost sales. Which, to be honest, it was right about. Throughout the early Nineties, *Sonic* characters starred in a *Puyo Puyo* clone, a pinball game, two kart racers and a couple of isometric platformers too, all of them very successful. Sega had clearly got the Mario equivalent it was looking for.

As Sega transitioned from the Mega Drive to the Saturn, it only seemed inevitable that Sonic would make the leap too, but, for a multitude of reasons, it never really happened. He certainly put in his fair share of appearances, though. There was the not really 3D at all *Sonic 3D,* the actually quite brilliant retro compilation *Sonic Jam,* and the technically impressive racing game

Christian Senn recalls the process of trying to rework the character of Sonic into three dimensions. "I wanted to maintain the look and feel of the 2D Sonic from *Sonic 3* for *Sonic X-Treme,*" he says. "In addition to the game graphics, the original sketches of Sonic by Naoto Oshima were wonderful and I was drawn to them as inspiration for *X-Treme*. I discussed a desire to maintain the integrity of the original 2D art style with lead artist Ross Harris, who subsequently did a brilliant job of bringing Sonic to life in 3D. We had not yet seen any representations of Sonic in 3D, so it was very exciting to pave new ground. We wanted to continue the quality and polish that our predecessors had achieved, so attention to the big picture and the details was essential." Translating the gameplay into 3D was less easy, however, and may be the key to the reason why the troubled *Sonic X-Treme* was never

» *Sonic 3* was so big and ambitious that it was split in half, with the rest of it going into *Sonic & Knuckles.*

was to introduce something new every game. We were trying to create all of the original elements for the first time in a whole new dimension, and even add more. In hindsight, it might have been wise to attempt to re-create the basic elements of the 2D games in 3D, which might have allowed us time to polish the game before finishing and releasing it."

Jon Burton, founder and director of Traveller's Tales, had more success than Senn, creating and finishing two *Sonic* games, *Sonic 3D* and *Sonic R,* for the Saturn, though neither of them could really be classed as proper *Sonic* platform games. "The key thing I remember Sega always pushing for was to 'make Sonic move faster'," says Burton. "In *Sonic 3D,* getting the feeling of speed was a

Developer Quotes

"Sega knew they needed a character of their own that could match up with Mario, but that is easier said than done. They set an ambitious goal and managed to pull it off in a compelling and unique way."

Trip Hawkins, founder of Electronic Arts and 3DO

"The key thing I remember Sega always pushing for was to 'make Sonic move faster'. Getting the feeling of speed was a real challenge"

Sonic R. But no proper platform game. Sonic Team chose to spend the Saturn era developing original ideas like *NiGHTS Into Dreams* and *Burning Rangers* instead – for which we're very thankful, of course – while the US-based Sega Technical Institute was charged with developing a full 3D update of the series in the form of *Sonic X-Treme,* which sadly failed to reach completion.

completed. "I desired to take the aforementioned balance of *Sonic The Hedgehog* and translate it into 3D," says Senn. "Not having any idea of how large a bite we were trying to chew, the intention was to combine speed, puzzle-solving, ring-collection, bonus rounds, special rounds, enemies, bosses and some new gameplay elements nobody had every seen before. One of the hallmarks of the successive 2D *Sonic* titles

Sonic Timeline

A quick guide to Sonic's most memorable games... and a few others

Sonic Drift 2
Game Gear | 1995
Compared to the original, *Sonic Drift 2* was a much more considered sequel. This time the game delivered a better Grand Prix mode, banked curves, hills and the all-important link-up mode. Not the class act that *Mario Kart* proved to be, but a worthy attempt nonetheless.

Sonic Labyrinth
Game Gear | 1995
Sega continued to treat Game Gear owners to more variants. This time it decided that a puzzle game in the style of *Marble Madness* was the order of the day. However, the time limits and puzzle elements brought down what may have been a half-decent game.

Sonic The Fighters
Arcade | 1996
It had been three years since the last *Sonic* outing at the arcades, so it must have seemed prudent to have another stab at the coin-op fans. Unfortunately, because it was aimed at kids, it lacked depth and ultimately proved to be an unrewarding experience.

Sonic 3D
Multi | 1996
New console, new *Sonic* game. Well, kind of… This was pretty much the same game that would appear on the Mega Drive but with added 3D tunnels. However, at the time it impressed gamers and gave them an indication of what the Saturn was capable of.

Sonic Jam
Saturn | 1997
This had nothing to do with fruit, but from Sega's point of view it wasn't a bad ploy to get some money from Saturn owners who missed out on the Mega Drive games. Aside from the omission of *Sonic CD,* this was the perfect way to enjoy classic *Sonic* action.

Toon Struck

Robby London was head of creative affairs at DIC, the animation studio behind scores of popular children's cartoons between 1980 and 2008, including three different Sonic The Hedgehog series. Here he tells us what it was like to work with Sega's most famous face

Retro Gamer: What was your first experience of *Sonic The Hedgehog* and what did you think?
Robby London: We knew just from its trending popularity at the time that we wanted to pitch Sega of America on the idea of developing *Sonic* into an animated series for television, and so we needed to bone up on the property. Since I am not a gamer, we got one of the DIC artists who was a *Sonic* aficionado to play it for a video capture. So I was introduced to it by watching a video of the game being played. I recall thinking it had a very charismatic lead character and an interesting look. Of course, I couldn't make too much sense of the story elements, but then in those days it was quite typical for the lore behind most games to be elusive and impenetrable.

RG: What instructions did Sega give you in terms of what you could or couldn't do with the character?
RL: I don't remember any specific upfront instructions per se, other than emphasising to us how crucially important and valuable Sonic was to them. Which, of course, we knew! Sega did retain a contractual approval right for everything we did. So when we'd submit something like a character design, they would often have comments or requests for revisions, mostly on specific details of the designs, and mostly to ensure there was conformity across all the *Sonic* products they were licensing. They also had approval rights on all the voices, music, individual scripts for the episodes and various other creative elements. While they gave notes and requested revisions from time to time, I can't remember any specific theme to their comments nor any generic instructions. They had a representative named Jane Thompson who spent a lot of time with us in LA. Because she was professional and knowledgeable about production, that turned out to be exceedingly helpful.

RG: What do you think are the important characteristics of Sonic and how are these captured in a cartoon rather than a game?
RL: Mostly, I think it's attitude. Even Sega's original design of the character conveyed a lot of 'tude; cockiness, perseverance and a sort of a devil-be-damned outlook. Traits such as these lend themselves really well to an animated character for a television cartoon and can be significantly enhanced in that medium. Those of us who were writers created a lore and a context and situations for Sonic to demonstrate this persona with a richness that was not possible in the game. We came up with the phrase 'fastest thing alive', the signature arms-crossed, impatient foot-tapping pose, along with the catchphrase: 'I'm waiiiiting.' We also gave the character an actual voice, in this case Jaleel White, a huge TV star in America at the time for his role as Steve Urkel [in sitcom *Family Matters*]. Writers created the lines and the personality and Jaleel helped bring it to life. And in those days, even the animation itself that was possible in television far surpassed the limitations of videogames of the time.

real challenge. We had an upper limit on how fast we could physically scroll the screen, so Sonic could never move as fast as we wanted him to. Having the boost pads and bumpers helped, but he definitely moved slower in *Sonic 3D* than any other *Sonic* game. In *Sonic R*, the whole point of the game was racing, so the feeling of speed could really be focused on. In that game, the rings were very important as they would open up boost gates and secret short cuts, so the rings were used like a currency to 'buy' short cuts for better lap times."

The Saturn had some incredible games, of course, but if ever a console needed its star attraction it was this one. Up against the spectacularly popular PlayStation, the Saturn really needed every advantage it could get, and particularly after the world-changing brilliance of *Super Mario 64*, everyone expected *Sonic* to make the transition from pixels to polygons in style. It never really happened on the Saturn, but *Sonic* did eventually go 3D in the following generation, and Sega wasted virtually no time getting the game out there, launching *Sonic*

▶

Developer Quotes

"Growing up, I was a hardcore Nintendo fanboy. The Genesis changed all that and made me an overall videogame fan instead of a one-console fanboy, which is a really silly way to be, but that's another article. I loved character platformers, so when *Sonic* came around with that crazy blast processing and insane speeds I was hooked. Loved the look, style and play, and it had a huge influence over my first commercial success – *Jazz Jackrabbit*!"

Cliff Bleszinski, creator of Jazz Jackrabbit

Sonic R
Saturn | 1997
A cracking Saturn game and one that succeeded because it offered something different. *Sonic R* was a 3D racer that pitted familiar characters against one another. Oddly enough, this wasn't developed by Sonic Team but rather by British developer Traveller's Tales.

Sonic Adventure
Dreamcast | 1999
After the demise of the Saturn, Sonic returned faster and sleeker than ever. Determined to make the Dreamcast a success, Sonic Team did everything to ensure that *Sonic Adventure* was a big adventure that ably demonstrated the technical proficiency of the new console.

Sonic Pocket Adventure
Neo Geo Pocket Color | 1999
'Anything but the GBC' must have been the cry at Sega when it decided to make another portable edition. Taking elements from *Sonic 2* and *3* as well as bolting on a link-up option where you could race against your friends once again showed the prowess of Sega.

Sonic Shuffle
Dreamcast | 2000
Hot on the heels of *Sonic Adventure* came *Sonic Shuffle*, a collection of puzzle games not unlike *Mario Party*, which must have partly inspired Sega's stab at the genre. It was a fairly dire experience but it was capped off with some lovely cel-shaded graphics.

Sonic Adventure 2
Dreamcast | 2001
By now the Dreamcast was all but gone, but it didn't stop Sonic Team releasing one last *Sonic* game on a Sega console – it was Sonic's tenth anniversary and it would have seemed rude not to. However, this wasn't the last we'd see of the Blue Blur…

The Special Stages

One of the most memorable parts of the early Sonic games are the hidden stages that featured completely different gameplay to the main adventures
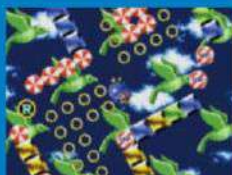
SONIC THE HEDGEHOG
The original special stage isn't exactly the best, but it is still fun. In it you control a curled-up Sonic as he bounces around a rotating maze, trying to get to the Chaos Emerald in the centre while avoiding the exits. The same special stage also appeared in *Sonic The Hedgehog 4: Episode I.*

SONIC THE HEDGEHOG 2
Definitely the most popular special stage of them all, this one saw Sonic and Tails running straight down the screen along a half-pipe, collecting rings and avoiding bombs. It was a technical marvel at the time, creating a sense of 3D depth that was rare on the Mega Drive.

SONIC THE HEDGEHOG 3
Continuing the trend of 3D bonus stages, *Sonic 3*'s effort asked you to run around a globe and walk over the top of coloured balls in order to change them from blue to red. Hit a red ball, however, and Sonic would bounce off, often straight into trouble. This stage was also in *Sonic & Knuckles.*

SONIC CD
Making great use of the Mega-CD's sprite-scaling abilities, *Sonic CD*'s special stage was basically a 3D open world in which Sonic could run in any direction, in order to hunt down and destroy robots. Another technical marvel, this was just one of many things that made *Sonic CD* special.
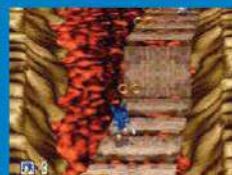
SONIC 3D
The Saturn version of *Sonic 3D* featured a special stage that was very similar to *Sonic 2*'s, but the Mega Drive edition was more original, using sprite rotation to create platforms for Sonic to use to reach the end. Though they looked great, these stages suffered from some unfortunate pop-up.

Developer Quotes

"I first saw it when shown to me by a journo mate – same guy who brought me a NES and *Super Mario* one weekend, which really was a life-changing event. I remember being impressed by the bright colours and the speed. It seemed ridiculously fast, especially compared to *Mario*. It was obviously Sega's reply to Mario, attempting to establish a similarly iconic main character with an excellent platform game. I liked that they didn't try simply to ape *Mario*, but distinguished *Sonic* with detailed environments, big areas and the speed. *Sonic 2* remains my favourite, though!"

Jeff Minter, developer of Tempest 2000

Adventure alongside the Dreamcast in America and Europe.

Sonic Adventure was a bold new direction for Sega's mascot, and though far from perfect, it was an interesting update after so many years of anticipation. Sonic Team could have easily settled on a simple 3D interpretation of the classic *Sonic* games but went so much further, incorporating many contemporary ideas such as vast explorable areas in addition to its linear, rollercoaster-like levels. The focus was also broadened far beyond Sonic himself, allowing control of six different characters, all of whom had their own adventure and style of play. A great idea in theory, this proved successful from a game design perspective but didn't exactly make *Sonic Adventure* popular

"The rise of the Mega Drive days, the big comeback on the Dreamcast followed by a low point and ultimately the modern era's focus on classic values"

with those who didn't like the series' ever-expanding cast.

Sonic Adventure also divided fans by lending a voice to its characters, almost turning the game into an interactive cartoon. American voice actor Ryan Drummond portrayed Sonic and recalls the loose approach that Sega took towards defining

Sonic Timeline

A quick guide to Sonic's most memorable games... and a few others

Sonic Advance
Game Boy Advance | 2001
Having spurned Nintendo's GBA in favour of less popular handhelds, it was great to see the little fella finally getting the small screen attention he deserved and, best of all, it was an all-new adventure, which drew upon elements from all his previous outings.

Sonic Advance 2
Game Boy Advance | 2002
Having become one of the bestselling GBA titles, it was a pretty safe bet that Sega would ensure that *Sonic* would return. Not only is this a better game than the original GBA outing but it also introduces us to the rather oddly named Cream the Rabbit…

Sonic Battle
Game Boy Advance | 2003
A woefully bad fighting game, *Sonic Battle* tried to cash in on the popularity of Nintendo's *Super Smash Bros* series on a system that wasn't nearly powerful enough to pull off a game of that calibre. This is one *Sonic* spin-off game that's best avoided.

Sonic Pinball Party
Game Boy Advance | 2003
A fun little pinball sim that also happened to feature tables based on other Sega fan favourites *NiGHTS Into Dreams* and *Samba De Amigo. Sonic Pinball Party* wasn't quite as clever as the Mega Drive's *Sonic Spinball,* but it was still pretty good fun.

Sonic Heroes
Multi | 2003
Sonic made his cross-platform debut in style with this underrated platformer, which played like *Sonic Adventure 2* but with a new system that saw three characters teaming up at once. Players had to swap between all three to overcome the game's challenges.

such an important part of the character. "At the audition, there was a picture of Sonic hanging up in the voiceover booth," he remembers. "The direction I got from the studio engineer was more of a question: 'If you heard a voice coming out of that blue hedgehog, what would it sound like?' I knew Sonic was all about energy and speed and youth, so I just thought it over, opened my mouth, and that's what came out. I remember that I didn't have time to rehearse it. I didn't even know what the voice was going to sound like until I was actually doing it into the microphone for the Sega folks. It just happened."

Sonic himself also got a complete overhaul with *Sonic Adventure*. Redesigned by Yuji Uekawa, a Sonic Team veteran with experience dating back to *Ristar*, the new Sonic was a much edgier creation. Taller, slimmer and somehow spikier, he'd lost a little of his friendliness but made up for it with an anime-style cool. This is

the Sonic that has remained ever since, though the games have been wildly different.

Part of the reason for this was Sega's switch to multiformat development. After abandoning the Dreamcast, the company had to take Sonic to new frontiers, creating games for Microsoft, Sony and Nintendo formats for the first time. Our hero probably felt most at home on Nintendo formats, which had a similar user base to that of the Dreamcast, so both *Sonic Adventure* games were quickly ported to the GameCube, in addition to the friendly and

colourful new *Sonic Heroes*. But Sega also made some rather unfortunate assumptions about its new audiences. The huge Western focus of the Xbox and PlayStation 2, for example, led Sonic Team to believe that the consoles' owners would prefer a moodier, more violent *Sonic* game, and so the developer created the terribly misguided *Shadow The Hedgehog*, in which Sonic's nemesis embarrassingly wields two handguns and drives a truck.

"As he became more 'hip with attitude', Sonic became faster and faster," notes Christian Senn of this later period of *Sonic* history. "I think it was good to push boundaries, explore new avenues, and learn what worked and what didn't so that successive games could improve. One element I think had a difficult time translating into 3D was the precision control offered in the 2D games. Pushing more towards blinding speed and combat seemed to be a trend, as well as introducing many new characters. Some amazing environments, visuals, gameplay mechanics and special effects have

Developer Quotes

"I bought a Genesis during my early days at LucasArts, and I still keep it hooked up. I have only a dozen games for it now, and two are *Sonic The Hedgehog*. The first one came with the machine. I'm not sure if I, an allegedly cool and sophisticated 20-something, would have purchased a platformer about a cute animal, but there it was, so I gave it a whirl. It was highly addictive, and I played it relentlessly. I liked zooming around, flinging myself into the air – in fact, my enjoyment of *Sonic* was not unlike my enjoyment of pinball. If I close my eyes I can still hear the jingling sound of rings."

Dave Grossman, Telltale Games

» Some series fans still can't utter the name 'Shadow' without shuddering.

» *Sonic Spinball* was turned into a rollercoaster at Alton Towers, where it remains today.

Sonic Rush
DS | 2005
After showing a terrible over-the-shoulder *Sonic* DS demo at E3 2004, Sega went back to the drawing board and returned with this effort. Its major innovation was the use of two screens for huge loops and other fun bits of level design.

Sonic Advance 3
Game Boy Advance | 2004
The final GBA game focused on the interplay between Sonic and his co-stars. A tag system allowed you to swap between two characters on the fly, a bit like *Donkey Kong Country*, while various pairings unlocked different abilities depending on the combinations.

Sonic Rivals
PSP | 2006
Though it looks like a platform game, *Sonic Rivals* is actually a pretty clever side-scrolling racing game. It's also, strangely, the first *Sonic* game to break with its roots and not be released in Japan, but don't let that put you off. It's actually pretty decent.

Sonic Riders
Multi | 2006
Yet another *Sonic*-themed racing game, this one used the same engine as the Sega-developed *F-Zero GX* and saw Sonic and chums riding hoverboards. Sadly, it was total rubbish and spent more time firing you into walls than anything else.
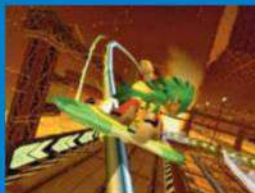
Sonic The Hedgehog
Multi | 2006
Sonic arrived on HD consoles in a game that looked promising and was reminiscent of the original *Sonic Adventure*, only far inferior in quality. This unfortunate reboot is the main reason that people assume all modern *Sonic* games to be rubbish.

been created throughout the years that really did appeal to me."

It's quite fashionable to write off all modern *Sonic* games as rubbish, but the truth is that they've been of varying quality, ranging from abysmal to brilliant. The 2006 version of *Sonic The Hedgehog* was a total disaster, featuring some really dodgy gameplay and a worrying relationship between hedgehog and human girl. And then there's *Sonic Unleashed*, an initially promising platform game that absolutely ruined itself with a series of awful beat-'em-up levels in which Sonic transforms into a sort of werewolf thing with big stretchy arms. But then there's *Sonic Rush*, a fun little 2D platformer with the added bonus of skating-style grinds and tricks that actually fit very comfortably into the regular gameplay. Or even the recently released *Sonic The Hedgehog 4* and *Sonic Colours*, both extremely playable platform games that happened to ditch the furry friends.

"I've got to say that *Sonic* has always worked best in 2D, in my opinion," says Jon Burton of Traveller's Tales. "I also think that the character from *Sonic Adventure* onwards changed, and I didn't like it as much. The cameras in those games I found really hard work compared to something like *Mario 64* as well."

It's certainly true that the best *Sonic* games of recent years are the ones that play in the traditional style, but you can't ignore the fact that some of the worst are also the ones with the most unnecessary additional characters.

» *Sonic 3D*, while flawed and not truly 3D, was a reasonable attempt at bringing Sonic into the third dimension.

Developer Quotes

"Up until the point where I had moved out on my own, I had been primarily a Nintendo fan, at least in regards to home consoles. My NES had carried me through high school and college, as the Master System hadn't quite done it for me. This changed when *Sonic* arrived on the Genesis. As a young man with little money, struggling with new-found responsibilities, it took careful consideration to determine what games I'd buy, but there was no getting around it: I had to have this amazing, impossibly fast blue creature running amok. Sonic was the character who turned me into a Sega fanatic."

James Mielke, Q Entertainment

Thankfully, Sega seems to have finally realised this and has mostly relegated them to ensemble pieces like *Mario & Sonic At The Olympic Games*, keeping the platform games focused purely on Sonic himself.

The last six years has been something of a difficult period for Sonic fans. It started off well with the 2010 release of *Sonic Colours*, which suggested that a reinvigorated Sonic Team was back on track and still able to tap into the combination of fast-paced gameplay and tight controls that had made the earlier games so much fun to play. Yes there were gimmicks,

but unlike many of Sonic's friends, they enhanced, rather than impeded the gameplay. *Sonic Generations* followed in 2011 and was a wonderful tribute that celebrated Sonic's 20th anniversary and switched between acts dedicated to both Classic and Modern Sonic.

There was more Sonic brilliance in the form of two racing games that appeared in 2010 and 2012. *Sonic & Sega All-Stars Racing* was a fantastic karting game from Sumo Digital that channelled the brilliance of *Mario Kart*, but was filled with a large number of loving Sega references. It helped that it was a great racing game too, with well-designed tracks and some stunning music. The sequel, *Sonic & Sega All-Stars Racing Transformed*, was even better, trawling even deeper into Sega's glittery past and

Sonic Timeline
A quick guide to Sonic's most memorable games... and a few others

Sonic Rivals 2
PSP | 2007
Sonic Rivals 2 was pretty much more of the same as last time out, except that it expanded the cast of playable characters from five to eight. Each character was also paired off with a team-mate who would run behind them, harking back to *Sonic The Hedgehog 2*.

Sonic Rush Adventure
DS | 2007
A fairly unsuccessful sequel, *Sonic Rush Adventure* spoiled its otherwise excellent gameplay by implementing totally unnecessary seafaring sections, reminiscent of the similarly divisive sequences in *The Legend Of Zelda: The Wind Waker*, only much worse.

Sonic And The Secret Rings
Wii | 2007
Sonic has had a fairly good run of games on the Wii, and his debut on the system was very good indeed. An over-the-shoulder platform game, it made good use of the Wii Remote's tilt controls for a fast and intuitive rollercoaster ride of an experience.

Sonic Unleashed
Multi | 2008
Titled *Sonic World Adventure* in Japan, this 3D *Sonic* game promised to revitalize the series by mixing *Sonic Adventure*-style 3D gameplay with more classic 2D assault courses. But it ruined all that by adding 'werehog' sections with tedious beat-'em-up gameplay.

Sonic Chronicles
DS | 2008
The first and only *Sonic* RPG, *Sonic Chronicles* was actually made by BioWare, the Canadian studio behind high-profile RPGs like *Mass Effect* and *Dragon Age*. *Chronicles* wasn't quite up to its usual standard but was one of the better *Sonic* spin-offs produced.

Sonic's Cameos

Sonic is so famous, he's even appeared in a bunch of other characters' games too. Here are some of the most notable

RAD MOBILE

This 3D arcade racing game from AM2 and Yu Suzuki features a Sonic-shaped air freshener hanging in front of the windscreen. Interestingly, this was actually the first appearance of Sonic, predating his Mega Drive debut by about six months.

SOLEIL

A Mega Drive RPG with similarities to *The Legend Of Zelda*, *Soleil* features a scene in which Sonic can be found sunbathing on a beach with his feet up. All that running around, defeating Dr Robotnik, must tire him out.

DONKEY KONG COUNTRY 2

Years before Sega and Nintendo made friends, the latter took a swipe at Sonic here. The ranking screen features a number of famous Nintendo characters but alludes to Sonic and Earthworm Jim in the category of 'No Hopers'.

CHRISTMAS NiGHTS

This free Christmas-themed edition of Sonic Team's *NiGHTS Into Dreams* allowed you to collect several interactive Christmas gifts within the game, including one where you could play the game as Sonic and fight a huge, round Dr Eggman boss.

SUPER SMASH BROS BRAWL

After years of rumour, Sonic finally got to fight his rival in the Wii's *Super Smash Bros Brawl*, and he even got his own stage based on Green Hill Zone, with a newly rearranged version of the Angel Island Zone theme from *Sonic 3*.

"Sega wanted its own Mario; a character to help shift consoles. What it got is a character that has helped Sega through good times and bad"

adding the ability to transform between cars, planes and boats - even the levels transformed. In 2013, the first of several Nintendo exclusive Sonic games arrived. *Sonic Lost World* was an average platformer that was clearly influenced by the superior *Super Mario Galaxies* series, while the two *Sonic Boom* games are abhorrent aberrations that even true Sonic fans struggle to love.

If you were to summarise the career of Sonic over these past 25 years, you could definitely say that he's lived an interesting life. The meteoric rise of the Mega Drive days, the explosion into popular culture, the wilderness years of the Saturn, the big comeback on the Dreamcast followed by a low point of mediocrity and over-saturation and ultimately into the modern era and its focus on quality, experimentation and classic values. When Sega first created Sonic, it wanted its own Mario; a character to help shift consoles. But what it got is something slightly different; a character that has helped Sega through good times and bad and has gone on to become a hero to all gamers, no matter which console they happen to own.

Developer Quotes

"The first time I heard about *Sonic* was when someone commented that it was overrated and that the music was pretty bad. It motivated me to rent a Mega Drive and check it out for myself. Having a new console for a day was quite a special experience and I played the game until it had to be returned.

"I don't think I finished it, but I remember being impressed by the special stages and the loops. I did not fall in love with the game that day, although I feel a connection with the character since then and I've wanted it to be awesome for the last 20 years. Perhaps *Sonic Generations* will be?"

Collin van Ginkel, co-founder Two Tribes

Sonic And The Black Knight
Wii | 2009

One of the more derided modern *Sonic* games, *Sonic And The Black Knight* is actually much better than it's given credit for. Set in a medieval fantasy world, it re-imagines the *Sonic* characters as knights of the round table and equips them all with swords.

Sonic The Hedgehog 4: Episode I
Multi | 2010

Returning to the series' roots, this completely 2D game starred only Sonic himself and played fairly close to the style of the original Mega Drive trilogy. Only some slightly stodgy physics stopped it from being perfect.
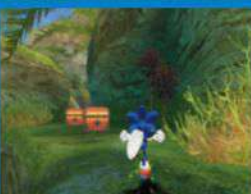
Sonic Colours
Wii | 2010

One of the best *Sonic* games in recent years, *Sonic Colours* featured mostly side-on gameplay as well as collectable Wisps that temporarily change Sonic's abilities. It almost played like a cross between *Sonic Adventure 2* and *NiGHTS Into Dreams*.

Sonic Colours
DS | 2010

The DS version of *Sonic Colours* went even further than the Wii version in its drive to return to a more classical 2D style of *Sonic* gameplay. Some people even believe that it's the superior version of the two… and they happen to be correct.

Sonic Generations
Multi | 2011

Released a few years back, *Sonic Generations* is another great *Sonic* game. Teaming up the modern version of Sonic with the more cartoony retro version, it allows you to play any stage either completely in 3D or completely in 2D. It's about time too.
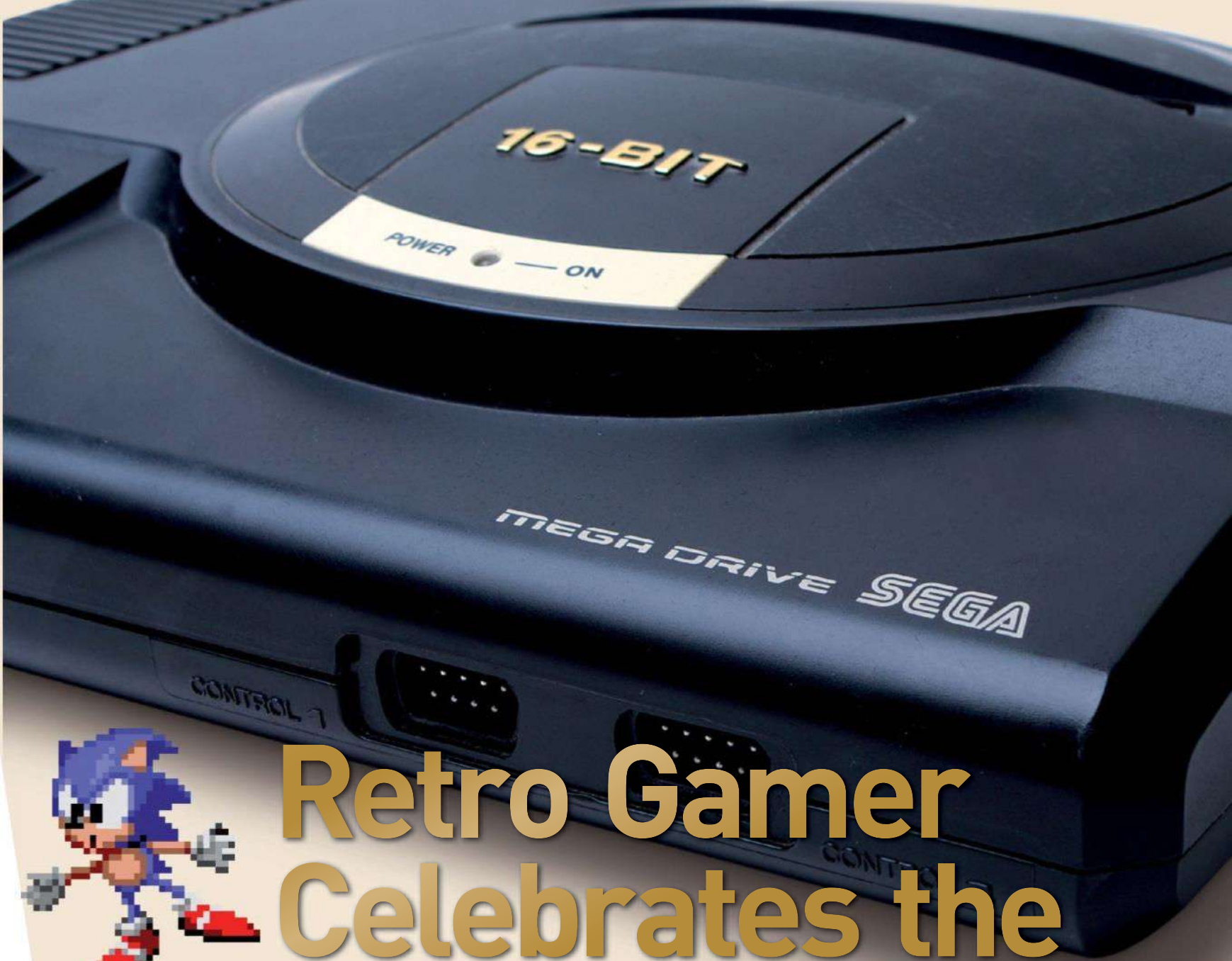
Retro Gamer Celebrates the MEGA DR

With the release of the Mega Drive Ultimate Collection getting everyone playing Mega Drive games again, we decided there was no better time to look back at the triumphs of Sega's 16-bit wonder machine through the eyes of those who lived and breathed it

Despite the Master System's inability to break Nintendo's kung-fu grip over Japan and the US, and the collateral damage caused by the commercial collapse of the Mega-CD, the fact remains that each and every one of Sega's machines made important contributions to the videogames industry, helping to shape it into the billion-dollar beast it is today.

Sega's Master System is memorable for marking the company's first attempt at taking 'home gaming' global, and despite the console's inability to break Nintendo's vice-like grip over the US and Japan, it allowed Sega to penetrate territories where the Big N had struggled – most notably in Europe and South America. The Japanese version (the SG-1000 Mark III) is also noteworthy for being one of the few consoles to offer backwards compatibility out of the box, with the third version of the machine compatible with both Mark I and Mark II software. Plus, the system introduced (in a loose sense) a 'budget' range of console software, with the credit-card sized MyCards in 1985, and Opa-Opa and Alex Kidd pioneered the idea of a Sega mascot before Sonic the Hedgehog was even a spiky glimmer in Yuji Naka's eye. More importantly than all that

Q&A
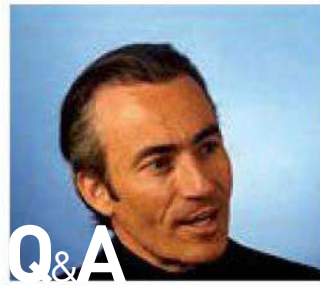
Trip Hawkins
Founder and former CEO of Electronic Arts

Retro Gamer: Many people feel that EA was instrumental in the Mega Drive's Western success. Is this something you'd agree with?

Trip Hawkins: There's no question about it, considering that EA had about 50 per cent of the software business for the Mega Drive and expanded the market with EA Sports, *Populous* and *Road Rash*.

RG: What was your relationship with Sega like?

TH: To this day, there is a high degree of mutual respect and class in my relationships with David Rosen, the founder of Sega, Nakayama, who acquired and modernised Sega in the digital era, and Tom Kalinske, who was president of Sega of America during the heyday. That said, we did go toe-to-toe when we negotiated deals and it was no holds barred. In hindsight, I imagine for all of us that we consider each other among the more entertaining characters we have had the opportunity to do business with in our lives.

RG: What were those little yellow tabs for on EA carts?

TH: It was just for a bit of colour and visual interest and it probably kept the cartridge from cracking open. It's great that you remember something that silly.

RG: Many EA games were far better on the Mega Drive than they were on the SNES, why was this?

TH: It's pretty simple really. If you only wanted to do a paintbox program or a beautiful landscape for *Mario* that scrolled slowly, the SNES was great. But for conventional games with conventional animation needs, the Mega Drive was the clear winner.

RG: Which EA Mega Drive game do you feel best took advantage of the machine and why?

TH: It's hard to argue with *Madden Football*, *Populous*, or *Road Rash*. I also loved *PGA Tour Golf*.

RG: What's the best non-Electronic Arts Mega Drive game you've ever played and why?

TH: My personal favourite would probably be *Rampart*, and I also really liked *ToeJam & Earl*. The most successful non-EA game would of course be *Sonic* but that's not my favourite genre.

RG: Why do you think the machine remains so popular with gamers?

TH: Plug and play, two players head-to-head, graphics that are good enough, your favourite sports. What's not to like?

» In Sega's determination to find a mascot for the Mega Drive this duo was mooted; ToeJam and Earl were a dysfunctional pair of aliens who appeared in one of the most original and colourful games on the machine.

» The Mega Drive excelled with Disney-licensed games, with *Aladdin* being one of the console's most popular.

though, the Master System turned Sega's focus away from the arcade and home-computer markets and set it firmly on the road to console development.

When Sega launched the Mega Drive in Japan (on 29 October 1988), the company faced stiff competition from a firmly established Nintendo still riding high from the popularity of the Famicom, and the new, sleek-looking 8-bit powerhouse called the PC-Engine – a joint hardware venture by Japanese electronics companies Hudson Soft and Nippon Electronics Company (NEC) that was allowing some of the most popular arcade games, including several Sega licences, to be played in the home.

At the time, the main ambition of Hayao Nakayama, then head of Sega, was to create an arcade system for the home, similar to how NEC had positioned the PC-Engine. Despite the obvious direct competition that would present, it was a decision that made sense for two reasons. First, Sega's amusement division was producing some of the most popular arcade games of the day, and, second, the internal specs of the Mega Drive were based on a revision of Sega's System 16 arcade board. With the machine's development overseen by Sega technician Hideki Sato, the Mega Drive's arcade

» The gritty cyberpunk adventure *Flashback* struck a chord with plenty of Mega Drive owners on its release – not that Conrad would ever remember.

MEGA DRIVE

The EA connection
Americans love sport and war sims, and thanks to EA the Mega Drive did, too…

ROAD RASH
Sometimes the clumping together of two game genres can have less than desirable results; you often end up with a game of two halves with neither feeling strong enough. Not so with *Road Rash*, a game that mixed the brutal dust-ups of *Streets Of Rage* with the exhilarating driving of *Super Hang-On* with astonishing aplomb. Spanning a series of three games for the Mega Drive, *Road Rash* proved a popular racing series on Sega's machine and a hugely successful franchise for EA.

JOHN MADDEN FOOTBALL
To say *John Madden Football* was as important to the Mega Drive's Western dominance as *Sonic The Hedgehog* is no understatement. With American football the most popular thing in the US since the hamburger, this game's success was secure. Rushed through development at the behest of Sega, who was desperate to have a Mega Drive football game on its machine, EA cemented Sega's fortunes by helping the Mega Drive find its way into millions of US homes.

DESERT STRIKE
Desert Strike caused a bit of a stir following its release after some loopy members of the press criticised EA's game for attempting to capitalise on atrocities of the Gulf War – we, of course, side with EA and believe that war games have and always will have their role to play in videogames, contemporary or otherwise. *Desert Strike* was an isometric take on the classic POW-rescue classic *Choplifter*, and like its popular Apple II muse, mixed elements of action and strategy brilliantly.

FIFA INTERNATIONAL SOCCER
The most eagerly anticipated 16-bit football game of all time, *FIFA Soccer* had a similar effect on us European Mega Drive owners as *John Madden Football* had on our American cousins. While its isometric perspective meant *FIFA* wasn't the most intuitive or slickest of football titles of the day, the game did boast some wonderfully detailed-looking player and stadium graphics, immersive sounds, and wrapped everything up in a nice little 'official' package.

» One of the slickest-looking games to ever appear on the Mega Drive, *Earthworm Jim* was bestowed the honour of Game Of The Year by a chuffed as punch Sega.

Q&A
David Perry
Shiny Entertainment founder

Retro Gamer: From a game programmer's point of view, what would you say were the machine's strengths and weaknesses?
David Perry: Scrolling with sprites was what these machines were designed to do. I guess our angle was the way we compressed up animation and could still get it to display fast. We also had come up with a way to use really good pencil animators and get those pencil drawings, coloured and compressed into our funky format, and then gave a lot of control to the animators so they could tweak to their heart's content.

RG: Were there any developers writing software for the Mega Drive that you respected and admired?
DP: I finally got to meet Yuji Naka, he was my hero at the time. There were plenty of other great teams around, the one that scared me the most was Treasure. They also were somehow getting more out of the hardware than just about anyone else. *Gunstar Heroes* was one of my favourites at the time and I always lived in fear of their next game. So I think again

RG: Many feel that Shiny was instrumental in the Mega Drive's Western success. Do you agree?
DP: I was in the right place at the right time. I flew from England to the US to make *Global Gladiators*, then surprisingly it won a Game Of The Year award from Sega, just as I was planning to go back to the UK. So I stayed and made *Cool Spot*, Sega ended up liking that and published it themselves, so they gave us *Aladdin*. *Aladdin* ended up winning a ton of awards and was even boxed with the hardware. So how could I leave? That's when I started the *Earthworm Jim* team in Laguna Beach and those guys rocked. Once Sega saw that, we got Game Of The Year again. So I guess my point is that if all just fit together. If I'd left and gone back to the UK, who knows how this would have played out.

RG: Why do you think Sega's Mega Drive has remained so popular?
DP: It's where a lot of us grew up, and really bit into some fantastic games. There was such a wide library of cool games. Just thinking about it makes me want to go and fire up my old Nomad.

RG: What is your best memory of the Mega Drive?
DP: Walking into the room for the *Aladdin* launch. Over 1,000 of the world's press at CES coming to see our game. The platform had really hit the 'big time'. 15 years later, I've still never seen an equivalent press launch, anything remotely as spectacular just for a videogame. So those *were* the days!

that pushed us to keep trying harder.

RG: Was there any reason why you 'appeared' to favour developing for the Mega Drive over the SNES?
DP: I had a friend called Nick Jones who was a fantastic SNES programmer, so I felt he had that machine covered. Back in those days we (as a group) all worked on different hardware and did conversions for each other. I was Spectrum -> Amiga -> Atari ST -> Genesis. He was Commodore 64 -> SNES. Another friend was PC. I guess if he had grabbed the Genesis, I'd have ended up on the SNES. It's funny how things work out.

beginnings meant it would produce wonderfully accurate arcade ports and also prove an easy platform for third-party developers to work with. Also, it seemed Sega was looking to the Mega Drive as a cost-effective path to generate sequels to its arcade hits and to create franchises. When Sega released the Mega Drive in Japan, it was launched with three such (albeit not great) games, all of which supported this thinking – *Space Harrier II* and *Super Thunder Blade*, with *The Revenge Of Shinobi* following a few months later.

Despite its promising-sounding software lineup and technical credentials, sales of the Mega Drive proved slow in Japan, and the machine's inability to break the country proved the source of much frustration for Nakayama and his team. It's possible that the Mega Drive's battle to strike a chord with Japanese gamers could be largely down to the very same reason it would later prove such a hit in North America.

NEC released the PC-Engine in Japan on 30 October 1987, almost a year earlier, to the day, than Sega would roll out the Mega Drive. This 12-month head start on the market, coupled with the fact that NEC was reportedly pumping almost $4 billion into R&D and that Japanese gamers were said to be thirsting for a 16-bit machine, gave NEC the perfect opportunity to capitalise on demand. By the time Sega was finally ready to launch the Mega Drive across Japan, the PC-Engine had overtaken the Famicom to become the bestselling console in the country. NEC had captured almost a third of the market. Perhaps it was this realisation that saw Sega hurry the Mega Drive's US release a year later, the same time NEC was planning to make its assault in America armed with a re-skinned version of the PC-Engine.

And so began a ferocious battle between marketing men and women, as both Sega and NEC fought to beleaguer Nintendo's hold over the North American videogames market. It was a battle that Sega would win thanks to a pair of aces up its sleeve. First, the Mega Drive (rebranded the Genesis in the US) was supported by a selection of launch titles (*Altered Beast* and *The Revenge Of Shinobi*) that found an instant appeal among young Western gamers – which is unsurprising; you need only look at the curious Western appearance of Joe Musashi in *Shinobi* or breathe in the Americana literally dripping from the exhaust of *OutRun*'s red Ferrari to see that Sega had always demonstrated a great proficiency in melding Eastern and Western cultural influences into its early arcade games. The other advantage Sega had was that it also had one hell of a marketing arm to drive the Mega Drive in the US – a team who was astonishingly apt at capturing the tastes and moods of the market.

Sega of America began as a distribution company, with hardware, software, and key decisions (such as the unpopular need for regional lockout in the Genesis) being made in Tokyo and filtered across to its Redwood City offices in California. Thanks

" A wave of EA titles began appearing at a rapid rate "

to Nintendo's heretical approach to business, and the stringent licensing agreements it imposed on software developers, the Japanese giant quickly built up a bit of bullish reputation in the West. This would prove beneficial to Sega. Under the guidance of Michael Katz, the then-president of Sega's US arm, the popularity of the Genesis gained momentum quickly as developers started seeing Sega's new machine as a viable and potentially profitable platform. Scot Bayliss, who joined Sega of America as a technical director in 1992, explains:

"At the time, Nintendo was notorious for having this insufferably arrogant attitude towards third-party publishers. To be fair, I question how much of that was by intent, but the perception of software makers here in North America and in Europe was that Nintendo was heavy handed, capricious and unfair in its treatment of the West. That single factor probably drove the creation of more good software on Sega's hardware than anything else. To third parties, we were the good partner and some of the most important titles in the West came to us first, exclusively or just better as a result. Later, Sony positioned themselves against both Sega and Nintendo as the first party who would step up to helping third-party publishers. They essentially replicated Sega's strategy of being the friendly face to developers – only they did it better. And the results spoke for themselves."

It's a well-known fact that Electronic Arts, through its popular range of sports titles, would prove instrumental in helping the Mega Drive secure an early success in the US. After it was discovered that EA had reverse engineered the Genesis hardware, a cocksure EA threatened to release unlicensed software on the platform unless a favourable licensing agreement could be met. Sega, possibly fearing the bad publicity this could throw up, baulked at the threat and Electronic Arts got its wish. The first wave of EA titles began appearing on the machine at a rapid rate, which was of course great news for a new console with a relatively small amount of software on its shelf. The sweet irony, of course, is that the speed at which EA was able to turn out its titles for the Mega Drive could only be attributed to Trip Hawkins reverse engineering the Genesis in the first place. But, as Bayliss explains, EA wasn't the only company who worked out how to circumvent Sega's security measures and tried to use it to their benefit.

"There were quite a few third parties that figured out how to bypass the Mega Drive's security checks," he says. "Probably most notorious among these rogue publishers was Accolade. And, of course, Sega sued. And there was much wailing and gnashing of teeth. But the reality is that opening up the platform like that, while it certainly cut into Sega's direct licensing revenue, it may well have helped them hit critical mass far more quickly."

So what was the attraction of the Genesis from a development standpoint? And what was it that Trip Hawkins saw in the Mega Drive that persuaded him to bet so heavily on the hardware? We contacted the Electronic Arts founder to find out.

"The 8-bit systems weren't powerful enough and the 16-bit computers cost too much," says Hawkins. "The Mega Drive was the first affordable consumer product with an MC68000 processor. I was involved in one of the first commercial uses of that processor

The Sega connection
We look at some of the Sega franchises that turned SNES owners green with envy

STREETS OF RAGE
After Nintendo had secured the licence for *Final Fight* for the Super Nintendo, Sega set to work on its own brawler. And while *Final Fight* clearly had the graphical edge over its scruffy rival, in terms of gameplay, depth of moves and enjoyment, *Streets Of Rage* knocked Capcom's game out cold. Sega quickly followed up its efforts with *Streets Of Rage II*, a game that ramped up the moves, the graphics, the bosses and the soundtrack of the original, and a third game that rounded off the trilogy brilliantly – although we advise you to get the Japanese version as it has a better story, skimpier outfits, better colour palettes and a difficulty level that wasn't set by a masochist.

SONIC THE HEDGEHOG
In terms of gameplay we don't think any sane person could argue with us that Sonic's adventures were better than Mario's – however, what those seminal *Sonic* games do they do flawlessly well. *Sonic The Hedgehog* ushered in a new dawn of platform game; an exhilarating dash-and-smash approach that wowed and dazzled like only the very best Sega games do. Following the game's success, Sonic Team quickly set to work on a sequel, and added a popular sidekick in Tails, a two-player mode and some nifty new moves to Sonic's action repertoire, producing what many consider the pinnacle of platformers on the Mega Drive.

SHINING FORCE
It was a close call between this and *Phantasy Star* but if we had to pick one definitive RPG series on the Mega Drive then the *Shining* series wins by a nose. As one of the earliest examples of the strategy RPG to come to Europe, *Shining Force* and its sequel introduced Mega Drive owners to a whole new way to enjoy the role-playing genre. Taking the tactical gameplay of chess and expanding it into a fantasy environment, with the story and character growth of a *Dungeons & Dragons* game, it mixed several pre-existing elements to make something fresh and interesting. That the series survives 18 years on is testament to its enduring appeal.

ECCO THE DOLPHIN
When poor old Ecco's pod is mysteriously sucked out of the ocean by a malevolent twister, it falls to the young bottlenose dolphin to uncover what has happened by solving puzzles and interrogating wise schools of fish. *Ecco The Dolphin* boasted some of the most impressive visuals ever seen on Sega's Mega Drive, but due to the fact that it wasn't your typical action/ adventure game many would sadly pass *Ecco The Dolphin* off as a game for children simply because it featured a cute little dolphin on its box, but those who took the time to scratch at its glorious seabed would find one of the trickiest and most endearing games to find a release on the Mega Drive.

SHINOBI
Joe Musashi had quite a turbulent life on the Mega Drive. First, his wildly popular arcade game never got a Mega Drive release, his brilliant second adventure, *The Revenge Of Shinobi*, had to go though all sorts of revisions when it was released in the US because it had bosses who resembled Spider-Man, Batman, Godzilla, the Hulk and the Terminator, and finally, for the Mega Drive conversion of *Shadow Dancer* poor Joe was forced to replace his own son. Geez! At least Sega made it up to Joe in *Shinobi III: Return Of The Ninja Master*, which included amazing bosses, fantastic horseback and surfing sections and a greater emphasis on moves and combat.

»The brains behind the Sega Mega Drive, Hideki Sato.

"It was great for programming our EA Sports games"

at Apple back in 1979 and after I founded EA we began working with it in 1982. Later the Mac, Amiga, and Atari ST used the MC68000, and so did coin-op arcade games. But all of that equipment was too costly for most consumers. Of course, the Mega Drive also had custom silicon to speed up the graphics and sound. It was a great sprite machine so it was good for programming our EA Sports games. We could use a little bit of 3D for the playing field and then have nicely scaling sprites for the players. It was also plug-and-play and had two joysticks. All of that made up for the limited RAM and lack of read-write storage."

The Mega Drive offered consumers an affordable way to experience the type of games that were wowing Amiga and Atari ST owners at the time. And thanks to EA's background in software development for home computers, games such as *The Immortal*, *Powermonger* and *Populous* began appearing on the Mega Drive, which would have undoubtedly ensured it wider appeal. It's no coincidence that the Mega Drive was successful in North America and Europe, the two territories where the Amiga and Atari ST were also very popular. But not everyone was as convinced in the all-conquering potential of Sega's 16-bit machine.

"After the Mega Drive debuted in Japan in 1988, I decided to have Electronic Arts bet heavily on it because it just made perfect

sense to me," remembers Hawkins. "But, to be fair, most of the industry and most of the world figured that when Nintendo finally deployed their 16-bit response they would again roll over and crush Sega in their sleep.

In 1990, Tom Kalinske famously took over the presidential reigns of Sega of America and built brilliantly on the promising foundations that Katz had laid down. But while the US climate couldn't be rosier for Sega going into the Nineties, in the Land of the Rising Sun things couldn't have been more different. A dormant leviathan was about to reawaken as Nintendo slovenly entered the 16-bit fray. Backed by two leading Japanese developers, Square and Konami, and with a machine that it was said would blow the competition out of the water, many felt the Mega Drive's days were soon to be numbered. Expectantly, the Mega Drive was hit hard in Japan by the Super Famicom's popularity, but thankfully for Sega, when the time came for Nintendo to release its machine in North America a year later, Sega had gained a considerable lead in the market, and by 1991 the success of the Mega Drive in America was sealed.

Starting out life with the name 'Mr Needle Mouse', a blue hedgehog (in keeping with Sega's corporate colour) belied the most dazzling and slickest platform games ever created, capturing the hearts and minds of an entire generation of gamers. Sonic, as we would come to know him, would become a global superstar and a vital pawn for Sega in the ensuing console war. Despite initial reservations by Sega's American execs (apparently many of them didn't even know what a hedgehog was), the impact that Sonic the Hedgehog would have on the fortunes of the Mega Drive was unprecedented. Not only did Sonic give a face to Sega in the same way that Mario had given one to Nintendo, but the blue blur also stirred imaginations and creativity among developers, and caused many to sit up and take notice of what the Mega Drive was capable of. Shiny Entertainment founder David Perry recalls the first time he

Readers' comments Favourite Mega Drive moment

Zerocool
All hell breaking loose on Level 3 of *Strider*, and changing into a werewolf for the first time in *Altered Beast*.

Mike Haggar
Booting up *Sonic* for the first time and hearing 'Seeee-gaaa'.

DPrinny
Playing Master System games on it. Or seeing it getting all its holes filled with useless add-ons and things. It was like some strange kinda orgy.

Havantgottaclue
Buying one in Gamestation in Poole about three years ago and kick-starting my retro-console-collecting fetish.

Lorfarius
The awesome moment while playing *Altered Beast* when you first realise you can change into the werewolf.

psj3809
Beating my best mate on *John Madden Football*! It was the last play of the game, I just threw the ball up and hoped for a bit of luck and

somehow my player caught it to win the game on the final play!

Tepid Snake
The Mega Drive is also directly responsible for getting me back into retro gaming – after we sold our first one, I got lucky and found another Asian Mega Drive at a boot fair for £15, and I've been getting the collection back ever since...

Rabiteman
The thrill ride that was *Gunstar Heroes*' Seven Force boss

djcarlos
The first time I summoned the police car in *Streets Of Rage*... mwahahahahahahaha.

timewarpgamer
Plugging the ugly 32X on top of my model one Genesis (in addition to the original Mega-CD expansion), and enjoying *Space Harrier*, *Virtual Racing* and *NBA Jam* for the first time at home. The 32X may have sucked overall, but those titles rocked my console world back then. And they still do.

The Disney connection
Sega invested a lot to secure big videogame licences, one of which was Disney…

CASTLE OF ILLUSION
With Mario leading the charge for Nintendo, it was obvious that Sega was going to need a pretty big platform star to pull in the kids; and who bigger than Mickey Mouse. The first in a series of surprisingly brilliant Disney-licensed games to appear on the Mega Drive, *Castle Of Illusion* was a sugary platformer with jaw-dropping cartoon graphics and slick animation. It proved an early warning shot to the commercial pull and technical prowess of Sega's machine.

QUACKSHOT
Another Disney classic, this time starring Donald. With an *Indy* theme, *Quackshot* wasn't your typical platformer. While its gameplay still involved lots of running and jumping, progression through the game's stages rested on Donald finding the correct items and using them in the right instances. While it might not sound that impressive today, back then it marked a succinct change to the usual style of action/platformers and led to *Quackshot* getting some pretty high review scores.

FANTASIA
Released to tie in with the operatic Disney feature of the same name, *Fantasia* took one scene from the movie and built a game around it. While it looks great, its visual slickness belies cumbersome gameplay and irksome combat – issues that is are said to have arisen from the game being rushed. It's a shame because it could've made for a fabulous quartet of Mega Drive appearances for Mickey. 'Quartet?' you cry. Lest we forget *Mickey Mania*?

WORLD OF ILLUSION
The natural conclusion for the early wave of Disney-licensed games found Mickey and Donald teaming up in a colourful platformer. As the name suggests, *World Of Illusion* is the sequel to *Castle Of Illusion*, and the gameplay is very similar. The main difference is that *World Of Illusion* is essentially three games in one. You can play out Mickey's adventure, Donald's, or a co-op mission. But it's not a lengthy affair; like all these Disney games, their simplicity and short length let them down.

ever saw Sonic dart through the Day-Glo delights of the Green Hill Zone, a moment he would never forget.

"When I saw Sonic… I really didn't know how the *heck* Yuji Naka managed to get so much out of the hardware?" says Perry. "Who is this guy? It was as fantastic as it was a real kick in the pants. From that point on, we started to think a lot bigger."

The success of *Sonic The Hedgehog*, coupled with the popularity of EA's highly successful sports series and throwing millions of dollars at high-profile endorsements, was enough to see Sega become the 16-bit victor, and by 1992 the company had grown its market share from eight per cent to an astonishing 55 per cent. It had finally toppled Nintendo, taken control of the market and achieved its lofty goal. It was a truly momentous time.

"In retrospect it seemed a little surprising to the folks in the trenches," admits Bayliss. "One day I saw this email from Tom Kalinske announcing a celebration and I was like, 'Huh? We won? When did that happen?' We were so heads down, fighting the fight, we literally didn't notice."

And how did Sega celebrate the auspicious occasion?

"There was this all-hands company meeting – they had to do it in the parking lot," remembers Bayliss. "We were still in the Shoreway building in Redwood City at the time and there just wasn't enough room indoors. There was a little speechifying and they handed out varsity jackets and watches with Sonic emblazoned on them. Very cool swag. Believe it or not, I still have both."

But Bayliss also reveals that the real impact of that moment actually happened afterwards.

"There was this mood of near zealotry in the company," he says. "Nintendo had been the big dog for a while and we were the scrappy upstarts – well at least we thought of ourselves that way. When we overtook Nintendo of America it kind of kicked us into high gear. For two years, it seemed like we would stop at nothing to put the boot into the Nintendo gang whenever we could. I even remember the original copy for those Mega-CD ads they ran in the 25th anniversary edition of *Rolling Stone*, which specifically took a shot at Nintendo. It was the company jihad."

Nintendo's entrance into the 16-bit market generated the most passionate and high-profile console war ever seen. From boardrooms to playgrounds, the SNES versus Mega Drive conflict, which actually proved mutually beneficial for both parties, became a global maelstrom. It was an exciting time to be playing videogames and just as exciting a period to be making them. The 16-bit era marked a period that saw many precedents set in the industry as the extra power that Sega's Mega Drive and Nintendo's SNES brought to the table spurred many developers to experiment and attempt to push envelopes even further.

Q&A

Paul Davies
Ex-editor of Emap's
Computer & Video Games

Retro Gamer: Can you recall the first time you ever saw a Mega Drive running, and what was your first impression of the machine?
Paul Davies: Me and a mate went halves on an import Japanese Mega Drive in 1989. We had no idea what it was capable of other than seeing a couple of screenshots in a *Mean Machines* guide to consoles. We bought it with *Altered Beast* and *Ghouls 'N Ghosts*. We played them both to death! *Ghouls 'N Ghosts*

became an obsession. The first game I ever played until 4am without realising what had happened!

RG: What is your all-time favourite Mega Drive game and why?
PD: *Ghouls 'N Ghosts*, because it was so tough but full of great special effects and lots of detail to reward playing through it over, and over, and over…

RG: What is your favourite Sega series and why?
PD: This has to be *Virtua Fighter*. It has such authority now thanks to its flawless history and, despite being spectacular, is also quite graceful in a Zen sort of way. I admire its precision and fluidity. On the Mega Drive? I really enjoyed the *Shining Force* franchise because you could see the game's heroes upgrade their armour and weapons.

RG: Which game do you feel best took advantage of Sega's machine and why?
PD: *Gunstar Heroes*, without a doubt (almost my favourite game of all time). It was the first, and probably only, game to outperform the Super Nintendo with rotating sprites and a ton of colourful characters on screen.

One particular boss – the Seven Force – morphed into amazing forms that included a robot panther thing and a giant automatic pistol. This is one of the greatest 16-bit games ever made, in my opinion.

RG: Why do you think the Mega Drive has remained as popular as it has with gamers?
PD: Almost every new game brought a new idea, especially those games from Treasure (such as *Dynamite Headdy*, and so on). Sega produced some great role-playing games, there were also some awesome shoot-'em-ups such as *Hellfire*, *Zero Wing* and *Bio Hazard Battle* (aka *Crying*). It represents an era when Sega was at its most bold and experimental – some of the Mega-CD games were very ambitious if not always pretty (*Sewer Shark*).

RG: What is your best memory of the Mega Drive?
PD: Taking turns at getting through the shoot-'em-ups with my mates back home. Treating each new game as a real challenge and playing them right to the end without using continues. We even played *Moonwalker* like that. The Mega Drive was my training ground.

MEGA DRIVE

Q&A

Richard Leadbetter
Ex-Editor of Emap's
Mean Machines Sega

Retro Gamer: Can you recall the first time you ever saw a Mega Drive running, and what was your impression of the machine?

Richard Leadbetter: Yes, the first time I saw the Mega Drive, I was being interviewed for a position on *C&VG* by Julian Rignall. That would've been June 1990. Up until that point, I'd been strictly a C64/Amiga man, and had been put off the consoles after I saw how poor my favourite coin-ops (*OutRun* and *After Burner*) were on the Master System. The first games I saw in EMAP's dingy games room were *Golden Axe* and *After Burner*. Both were still some way off arcade perfect, but both were a clear leap ahead of the conversions I was playing on the Amiga. I think it was when I saw *Super Shinobi* (*Revenge Of Shinobi* in the West) that I realised that we were looking at a truly phenomenal machine.

RG: What is your all-time favourite Mega Drive game and why?

RL: Treasure's *Gunstar Heroes* is probably my favourite. It oozes playability and is technically unbelievable, but more importantly, this game represents Treasure at its height, almost literally exploding with pure creativity. *Dynamite Headdy* is another solid-gold classic almost as good as *Gunstar Heroes*.

RG: What is your favourite Sega series and why?

RL: The problem with all the Sega series (certainly on Mega Drive) comes down to the fact that pretty much all of them declined, sometimes rapidly. *Sonic 3* wasn't a patch on its predecessor, or indeed, *Sonic CD*. In fact, even today, the franchise is now a bit of a joke. *Streets Of Rage* is another series that disappointed badly after the brilliant second game. Even *Ecco The Dolphin* had *Ecco Jr.*

RG: Which game do you feel best took advantage of the machine and why?

RL: Treasure and Konami really pushed the hardware with games like *Castlevania*, *Contra*/*Probotector*, *Gunstar Heroes*, *Dynamite Headdy* and *Alien Soldier*. These games were massively more advanced than their equivalents earlier on in the console's life cycle. Outside of Japanese releases, the *Vectorman* titles were also quite, quite awesome, and while the gameplay wasn't exactly top-notch, the Dave Perry games like *Terminator*, *Cool Spot*, *Global Gladiators* and the likes were also great showcases for the Mega Drive. I think *Ranger X* deserves a special mention – the Mega Drive has quite a limited colour palette, but that game switched

the palette so rapidly that to the human eye it looked as though the game was more vibrant and colourful than any other. *Virtua Racing* also deserves a special mention of course, the only Mega Drive title to run with custom hardware inside the cart. Compare and contrast with the Super Nintendo, where tons of the games were boosted with custom chips as a matter of course.

RG: Why do you think it has remained so popular with gamers?

RL: I'd say that there are a couple of reasons behind this. We saw Sega at its creative high points during the 2D era, and the games still stand up pretty well today – which is how Sega can get away with emulated *Sonic* and *Streets Of Rage* games on Xbox Live Arcade. But there was also the fact that the console was such a huge sales success. It brought about a volume of titles that ensured that everyone had a favourite, or a nostalgic game experience they can still relate to.

RG: What is your best memory of the machine?

RL: I think it must've been when Sega sent over a *Sonic 2* cartridge to the *Mean Machines* office. The way things worked back then you'd get sent a whole bunch of flashed ROMs you'd need to stick into a cart-shaped motherboard that slotted into the console. The anticipation back then was immense, and it was superb to see the game actually living up to – and surpassing – the expectation. Of course, next morning, when the chips went missing and we almost called the police, that wasn't particularly fun. Thankfully it was just an over-enthusiastic staff member who was late to work…

» With the recent release of the new *Rambo* coin-op, Sega's relationship with the bullet-swallowing soldier spans an impressive 21 years.

"We had some fun times," recalls Perry. "Like *Terminator* was probably one of the first photoreal games, meaning it's actually us (the developers) photographed, scanned and used in the animations. And *Global Gladiators* was probably one of the first Mega Drive games with 'real' sampled musical instruments. It took a lot of memory and most developers wouldn't give the audio guy that much space. But it was Tommy Tallarico and he was keen to push the limits, so I gave him the space and he just went crazy. I think he got an award for that."

The early-Nineties marked such a great time to be a gamer. It was a period where everything felt bold, new and exciting. The great 16-bit console war between Nintendo and Sega had brought gamers together and pushed videogames further into the public eye. From *Sonic 2* to *Super Mario World*, *Street Fighter II* to Sega's gore-ticking port of *Mortal Kombat*, with every new high-profile release the continual tipping of the scales was almost tangible. It was a fertile and memorable time with everybody from gamers to journalists to developers staunchly picking a side to see how the battle would play out.

"Generally you were on one side of the fence or the other," remembers Perry. "The machines were similar, but with enough differences to divide programmers into two camps. I was one of the early developers on the Mega Drive, I got the original badly translated manuals from Japan and quickly fell in love with the hardware. This was one of the last series of machines where you were responsible for everything going on inside the machine. We programmed 100 per cent assembly language and pushed it to its limit. That was *fun*!"

And apart from the obvious early licensing deal that was struck between Sega and EA, what else drew Trip Hawkins to side with Sega and the Mega Drive?

The Capcom connection Some of Capcom's best-loved arcade conversions on the Mega Drive

STRIDER
Strider is by far one of the most popular arcade conversions to ever appear on the Mega Drive, and at a colossal 8MB, it was also one of the largest earlier Sega carts, too. As a result, the acrobatic wall-affixing Strider Hiryu helped shift plenty of Mega Drive units for Sega on its release. Sadly though, US Gold's Mega Drive sequel, *Strider Returns*, failed to live up to the brilliance of its predecessor – although it hasn't affected Darran's worrying love for the ninja.

GHOULS 'N GHOSTS
For a time *Ghouls 'N Ghosts* stood as the quintessential platform game for Sega's machine – not surprising when you consider it was programmed by Yuji Naka; the programming talent behind *Sonic The Hedgehog*. While the game is terribly unforgiving, Naka did at least do Mega Drive owners the courtesy of making this version easier than Capcom's devilish arcade game. *Ghouls 'N Ghosts* is a solid conversion of the classic coin-op, and a must for any Mega Drive collection.

FORGOTTEN WORLDS
Forgotten Worlds forms the final game in Capcom's *Jetpac Hero* series; a trio of games which also include *Section-Z* and *Side Arms Hyper Dyne*. Beginning life in the arcades, *Forgotten Worlds* found two nameless musclemen fighting an evil alien race. Armed with bad dialogue and a cannon that could be spun 360 degrees, our heroes were tasked with slaying gargantuan bosses against a thumping rock soundtrack. The Mega Drive is home to the best conversion, too.

MERCS
The sequel to Capcom's run-'n'-gun classic *Commando* was a curious conversion. With multiplayer annoyingly ousted, Sega decided to gear the game around the single-player experience and stop the potential street riots by including two versions of the game. The first is a straightforward port of the arcade game, while the all-new brilliant Original mode had the player fighting through seven new stages and freeing Mercs, which then became playable. Good one, Sega!

The Treasure connection
Wowing gamers, Treasure created some of the best games on the Mega Drive

GUNSTAR HEROES
Few companies have debuted with a game as spectacular as *Gunstar Heroes*. Made up of disgruntled Konami employees, Treasure's first game set an impossibly high standard of innovative gameplay and astonishing visuals that became a standard for the company for years to come. Mixing the hardcore blasting of the *Contra* series with a wicked dose of humour, *Gunstar Heroes* is a frantic, rollercoaster ride of a game that stills plays brilliantly today. Little wonder then that it had a compilation named after it in Japan.

MCDONALD'S TREASURE LAND ADVENTURE
Trust Treasure to take a licence based on a burger chain and actually turn it into a bloody good game. While it lacks the depth of other Treasure titles, *McDonald's Treasure Land Adventure* is still head and shoulders above similar licences and proves that it's possible to make a great game out of anything. Yes, it's rather bland for a Treasure game, but it remains a beautiful-looking title that definitely deserves more recognition. Just don't confuse it with *Mick & Mack: Global Gladiators*.

DYNAMITE HEADDY
If *McDonald's Treasure Land Adventure* showed us the business side of Treasure, then this utterly nutty platformer released a year later proved that its surreal sense of humour was still well and truly intact. With its gaudy visuals, huge bosses and hardcore action, *Dynamite Headdy* was a return to the Treasure that had made its name with *Gunstar Heroes* and delivered an unforgettable protagonist who had a different head for seemingly any occasion. Why he's never appeared in a sequel we'll never know.

ALIEN SOLDIER
As well as being noted for their amazing aesthetics and exceedingly clever gameplay, many Treasure games have also made a name for themselves due to their insane toughness. *Alien Soldier* is no different and we're ashamed to admit that even now, some 14 years after its original release, we've never completed it on a single credit. Effectively little more than a boss rush (a format Treasure is rather fond of), *Alien Soldier* remains one of the company's most challenging games. We still love it though.

"I think everyone knows by now that we had a better deal with Sega, but EA put plenty of games on the SNES," he says. "The reality is that Sega got to market much earlier and they had a better machine. Nintendo lost time because they were trying to make the SNES backwards compatible. This resulted in the poor choice of the 65010 processor that could run the 6502 instruction set. But they never got it to work. What you ended up with was a slower machine with baggage that it was lugging around that had no purpose. The SNES did have more colours but it animated too slowly, so who cared about the extra colours?"

Selling an astonishing 30 million units, the Mega Drive was the most important console Sega released in its 21 or so years period in the videogame hardware market. It marks a period of dizzying and magnificent heights that the company would never quite reach again. But while the Mega Drive can be attributed to Sega's successes it can also be entwined in the company's protracted departure from the hardware market. When Sega looked to extend the life of the Mega Drive with two life-support add-ons – the Mega-CD and 32X, it would prove a damaging and costly misstep for the company. While the add-ons brought with them some fantastic and ambitious titles, such as the astonishing delights of *Sonic CD*, *Sylpheed*, *Jurassic Park*, *Star Wars Arcade* and *Virtua Racing Deluxe*, the quantity of must-have games just wasn't there – and in the case of the 32X almost nonexistent. Many of the games that appeared on the Mega-CD were spruced up carryovers from the Mega Drive as developers hurried to get games to the platform quickly, and the public were quick to realise. This would have a seriously damaging effect on Sega's strong corporate image and also lead to a loss of confidence among the loyal customer base the Mega Drive had built up for Sega.

"Companies feel like they have to try to extend the life of a great brand with these kinds of gimmicks," explains Hawkins. "The Mega Drive had only 128KB of RAM. Realistically, the Mega Drive could not pretend to be 32-bit when there was nothing 32-bit about it. And it could not rationally use CD storage without much more memory and a completely different architecture."

With the recently released *Mega Drive Ultimate Collection* riding high in the software charts at the moment, it's clear that the Mega Drive has kept its fair share of fans and followers after Sega eventually pulled the plug on the console. And with a dedicated community across the web, and the impressive quality of homebrew efforts such as *Beggar Prince* and *Pier Solar* reminding us of how accessible a platform the Mega Drive is to program for, it looks like Sega's 16-bit saviour will continue to remain in our minds for many more generations and console wars to come.

TOP 25 MEGA DRIVE GAMES

As Sega's console turns 25 we asked readers what their favourite Mega Drive games were. David Crookes reveals the 16-bit classics that made your top 25

Jungle Strike

■ **DEVELOPER:** ELECTRONIC ARTS
■ **YEAR RELEASED:** 1993 ■ **GENRE:** SHOOT-'EM-UP

24 **A chopper title** that was so good it kept a popular series going for three more games, *Jungle Strike*'s strategical elements and full-on airborne blasting ensures its worthy place in our readers' top 25. The wealth of missions meant that gamers played for lengthy periods of time and, while let down by the sound every now and then, there remained a feeling of being immersed in a strong battle against an intelligent enemy. Well-ported, its natural home was within this original Mega Drive version where, aggressive war-mongering aside, design and control reigned supreme.

Disney's Aladdin

■ **DEVELOPER:** VIRGIN INTERACTIVE
■ **YEAR RELEASED:** 1993 ■ **GENRE:** PLATFORMER

25 **Of all of** the versions, the Mega Drive's *Aladdin* was indisputably the best. Surprisingly put together by legendary developer David Perry in just 99 days, it may have been a platform game – the staple genre of the majority of film tie-ins from the Eighties and early Nineties – but the cartoon graphics, silky smooth animation and diverse nature of the 11 levels was inspired by *Sonic*. It therefore had a frenetic pace and numerous collectables with flowing action that remains great fun.

Rocket Knight Adventures

■ **DEVELOPER:** KONAMI
■ **YEAR RELEASED:** 1993 ■ **GENRE:** PLATFORMER

23 **Seamless blending of** levels and the feeling that this first Konami game for the Mega Drive threw every graphical trick it could into a big pot, *Rocket Knight Adventures* was impressive. This was a game that oozed innovation (save for the boss battles) and higher difficulty levels lent it a challenge no gamer would want to live without experiencing.

Shining Force

■ **DEVELOPER:** CLIMAX ENTERTAINMENT
■ **YEAR RELEASED:** 1992 ■ **GENRE:** RPG

22 **A shining example** of a fine fantasy RPG, this turn-based tactical exploration of the Kingdom of Guardiana had the ability to see enemies in advance, giving players ample time to work out the correct and most intriguing strategy to employ in order to bloodthirstily slay them in combat. With elements of steampunk and a well-devised plot that employed humour and involved a great range of characters, *Shining Force*'s grid-based action and slick presentation made it an instant classic and it was recognised as such by many who played it back in 1992. Sure, there are some bizarre moments in the English translation – Lug, Luke, gah, it's so confusing – but that didn't stop it from getting into *Mega*'s Top 33 of all time and neither, it seems, did it bar it from entering our Top 25. Play it again today on iOS (like many other Sega classics) for pure retro gaming on the go.

ToeJam & Earl

■ **DEVELOPER:** JOHNSON VOORSANGER PRODUCTIONS
■ **YEAR:** 1991 ■ **GENRE:** ACTION/ADVENTURE

21 **The cover screamed** 'jammin' and it seems this totally cool and chilled-out game struck a chord with readers. Everyone likes a laugh, and ToeJam & Earl were a comedy duo to rival some of the greatest. The slow build-up at the start of this top-down action game soon gave way to plentiful giggles, and the developers no doubt had a ball when packing in their belly dancers, nerds and bogeymen among other assorted weird happenings, most of which parodied urban culture in the Eighties. *ToeJam & Earl* came into its own, in particular, when the two-player mode kicked in to allow gamers to share the experience with a buddy. While it wasn't a hard game to beat, the tone of the game drove players forward (albeit sometimes at a sedentary pace) and there was a sense of never quite knowing what was to come.

Desert Strike

■ **DEVELOPER:** ELECTRONIC ARTS
■ **YEAR RELEASED:** 1992 ■ **GENRE:** SHOOT-'EM-UP

20 **The subject matter** of *Desert Strike* is as relevant today as it was back then, with the affairs of the Middle East still firmly on the agenda. As befitting such a scenario, it was rather political, referencing the inability of the UN to take direct action against a war-mongering dictator and his army. However, it was also a sophisticated shoot-'em-up that was a world away from the more conventional examples of the genre, proving so popular, it was made for a host of other machines. Gulf War inspiration aside, *Desert Strike* had a rather fresh approach to war, although lead designer Mike Posehn had never made a game before he tackled this project. He ensured the game had everything you needed for a rich experience, be it maps, cut-scenes to explain the action or mission details to work out what to do next. The five main missions were supplemented with ten sub-assignments, lending depth and variety, as well as ensuring that gamers would be able to feast their eyes on the wonderful graphics and let their ears take in the Ron Hubbard sounds of war for a number of hours.

QuackShot Starring Donald Duck

■ **DEVELOPER:** SEGA AM7
■ **YEAR:** 1991 ■ **GENRE:** PLATFORMER

19 **Perhaps readers were** dewy-eyed over Dewey (and Huey and Louie). *QuackShot* proved that older gamers could enjoy some Disney action, but the beautiful graphics were marred by slow gameplay. This was perhaps better for newbies.

John Madden Football '92

■ **DEVELOPER:** ELECTRONIC ARTS
■ **YEAR:** 1991 ■ **GENRE:** SPORTS

18 **The game may** have lacked NFL and NFLPA licences, but EA's second title to feature the legendary American football commentator started the annual tweak-the-gameplay trend that kicked off a long-running franchise. And boy, it was a joy to watch that crowd celebrate.

Thunder Force III

■ **DEVELOPER:** TECHNOSOFT
■ **YEAR:** 1990 ■ **GENRE:** SHOOT-'EM-UP

17 **Like** *R-Type,* **this** horizontally scrolling shoot-'em-up excelled throughout, searing eyeballs with sharp sprites, polished parallax scrolling and bad-ass backgrounds that made the rat-a-tat waves of battling baddies and their barrage of bullets a pleasure. Great bosses too.

Golden Axe

■ **DEVELOPER:** SEGA AM7
■ **YEAR:** 1989 ■ **GENRE:** SCROLLING FIGHTER

16 **One of the most** well known Mega Drive games in existence, even for those that didn't play it. *Golden Axe*'s fun two-player mode made this scrolling fighter shine, as players head butted, kicked and sliced their way to victory with more than a nod or two to the *Conan* films.

Ghouls 'n Ghosts

■ **DEVELOPER:** CAPCOM/SEGA
■ **YEAR:** 1989 ■ **GENRE:** RUN-AND-GUN

15 **Straight from the** arcades to home machines, this run-and-gun classic (converted by Sega) is just as frustrating as the arcade original. It remains a fantastic port however and had owners grinning at their SNES-owning friends. Until *Super Ghouls 'n Ghosts* came along…

Dynamite Headdy

- **DEVELOPER:** TREASURE
- **YEAR RELEASED:** 1994 ■ **GENRE:** PLATFORMER

14 **Developed by Treasure,** the bright, colourful visuals of *Dynamite Headdy* will have stuck in the heads of all the gamers who tried this genre-busting platformer back in 1994. An all-so-knowing and relevant tale of a puppet called Headdy in pursuit of a girl's attention, it could easily have gone down the path of *Mario* (which, admittedly is a great route for games to take). After all, Headdy discovers that his girl and his friends have been kidnapped. What to do? Go and rescue them.

But where *Dynamite Headdy* succeeded was in turning perception upside down, literally at times. It also relied on getting the right head on, whether it be a strength-increasing offensive noggin or one that would let him snooze. It meant that, even for platform fans, it was a new experience, helped along by lots of useful characters.

Flashback

- **DEVELOPER:** DELPHINE SOFTWARE INTERNATIONAL
- **YEAR RELEASED:** 1992 ■ **GENRE:** PLATFORMER

13 **It is the** best selling French game of all time, according to Guinness World Records, and US Gold brought it to the wider masses. The way the screens slid in rather than scrolled when the player neared the edge, gave it an old-school feel even when it was released in 1992, but the rotoscoping and use of FMV made it feel part of the future. *Flashback* became a massive hit and was marketed as being a CD-ROM game on a cartridge due to its huge scope and size. All of the backdrops were hand drawn, and so the style was very much unlike anything that came before it. This lent it an ambitious edge which could be seen in the manner of play, the realms of role-play coming to the fore in level two and enemies suddenly feeling sharper and more intelligent the deeper you go.

Streets Of Rage

- **DEVELOPER:** SEGA AM7
- **YEAR RELEASED:** 1991 ■ **GENRE:** SCROLLING FIGHTER

12 **At the time** of release, many regarded *Streets Of Rage* to be the Mega Drive's best fighter. We won't say it was the best ever, for reasons that will undoubtedly become clear later, but it was a two-player combat game of excellence that had scores of enemies battling against you over eight levels. A worthy alternative to Capcom's *Final Fight*, which was exceedingly popular on Nintendo's SNES, it may have been a little slow (particularly if you played as Adam) but there was no denying that the game's combat made it highly satisfying to play. It had a great multiplayer mode as well, giving it the edge over the SNES ports of Capcom's popular fighter. Add in some truly astonishing trance-style music, courtesy of Yuzo Koshiro and Motohiro Kawashima, and it becomes easy to see why Sega's scrolling fighter remains so popular.

Strider

- **DEVELOPER:** CAPCOM/SEGA
- **YEAR RELEASED:** 1990 ■ **GENRE:** PLATFORMER

11 **This is quite** simply one of the finest arcade ports of its time on Sega's machine and it still manages to impress today. Sega handled the ambitious port itself, and the end result is a magnificent early release for the Mega Drive that proved just how powerful the 16-bit console was. *Strider* remains beautifully animated as he fights his way through the game's huge levels and, while certain sections are prone to some rather irritating sprite flicker, it's still amazing to see just how polished Sega's port actually is. Full of inventive level design - including the best second level ever - and featuring a bewildering array of crazy bosses to battle through, *Strider* is Capcom at its most inventive and creative and it remains a sensational platformer. Filled with dazzling set pieces and excellent tunes, *Strider* on the Mega Drive was arguably one of the best ports of the game, with only the Sharp X68000, PC Engine and PlayStation versions bettering it. Darran is still in shock that it didn't make your top ten.

Thunder Force IV

■ **DEVELOPER:** TECHNOSOFT

■ **YEAR:** 1992 ■ **GENRE:** SHOOT-'EM-UP

10 Okay, so we kind of glossed over *Thunder Force III* and that is because, as great as it was, many readers feel this is better. For those reading in America, you may know this as *Lightening Force: Quest For The Darkstar*, a game that rocked to a synth beat and locked to a hair-pulling regional program that meant European Mega Drive and Genesis owners couldn't play the Japanese version.

Thunder Force IV wasn't a gigantic leap from *Thunder Force III*. It was a bit of gameplay tinkering here, a little polish of the graphics there, and yet the result is considered by many to be the best of the series. It may still be a shoot-'em-up that scrolls to the side, but you could go up further than the boundaries of the 14-inch telly that you had in your bedroom and it felt as if you had loads more freedom.

Looking as if the graphic artists had stayed up day and night for months on end due to the incredible detail of the backdrops and sprites, it is fair to say that the programmers, on the other hand, may have had some sleep. There wasn't so much innovative thinking going on, especially in terms of speed where slow-down was an issue at times but not enough to make you wince.

However, if something was achieved, then it was a sheer show of power. If nothing else, the game, while starting to feel as if it was just offering standard shoot-'em-up fare, showed the true power of the Mega Drive and you sensed that the achievement could not have been possible on other consoles. With the history of the series behind it, *Thunder Force IV* could afford to push on incrementally rather than make a wholesale change and, today, if you were going to go back and play one of the series' games, you should certainly make a bee-line for this.

Castle Of Illusion Starring Mickey Mouse

■ **DEVELOPER:** SEGA AM7

■ **YEAR RELEASED:** 1990 ■ **GENRE:** PLATFORMER

9 Although you may think home consoles were awash with *Mickey Mouse* games, this was actually only the second outing for Disney's anthropomorphic rodent. It helped to cement the Mega Drive's reputation as a must-have machine, such was the addictive nature and jaw-dropping graphics that combined to make the game so loved. Beautiful parallax scrolling and a range of animated faces brought the world and Mickey to life. It wasn't an incredibly hard game and the obstacles and traps that lay before Mickey were by no means insurmountable. But who could fail to fall for a charming butt-stomp that dispatches Mickey's enemies? Not us.

The Revenge Of Shinobi

■ **DEVELOPER:** SEGA AM7

■ **YEAR RELEASED:** 1989 ■ **GENRE:** RUN-AND-GUN

8 Revenge is such an ugly word, isn't it? But, without wishing to sound corny, it made for a very sweet game. The sequel to *Shinobi*'s 1987 debut turned Joe Musashi into a household name and, while he pounded the streets of his eight districts in a bid to confront Neo Zeed, he got to biff Batman and spring a surprise on Spider-Man among an assortment of other well-known hero-baddies. Such blasé use of said icons (explained away by the doings of a shape shifter) got Sega into some bother and it had to make some later revisions. But that only provides for what is a good yarn – not that a well-animated, sonically beautiful and addictive game would need such assistance.

Road Rash II

■ **DEVELOPER:** ELECTRONIC ARTS

■ **YEAR RELEASED:** 1993 ■ **GENRE:** RACING

7 *Road Rash II* is one of only two racing games in the top 25, showing that either the Mega Drive wasn't really blessed with a vast selection of such titles, or that our readers couldn't give two hoots about many of them. Great for one or two players, and having three bike classes in Ultra Light, Nitro Class and Super Bike, *Road Rash II* had a number of options that included a split-screen game, pure head-to-head and some smacks to opposing riders' faces. The learning curve was spot on too, with the difficulty increased after each section. The good news was that you could just keep going until you fell asleep (not while racing, we hope) and, once you had secured your racing passwords, you could start from where you finished off.

Sonic The Hedgehog 3

- **DEVELOPER:** SONIC TEAM
- **YEAR RELEASED:** 1994 ■ **GENRE:** PLATFORMER

5 **Sonic's first entry** in our list and it's predictably high. Sonic's last main Mega Drive game was an impressive refinement of the series, featuring everything that had made the hedgehog so popular but on a far larger scale. Notable for introducing Knuckles to the series, *Sonic 3* also used the lock-in technology that had been created by Sonic Team and Sega Technical Institute for *Sonic & Knuckles*. It's a fantastic platformer with excellent visuals, super slick animation and a superb soundtrack – but according to you, it's not Sonic's best Mega Drive outing.

Micro Machines Turbo Tournament '96

- **DEVELOPER:** SUPERSONIC SOFTWARE
- **YEAR RELEASED:** 1995 ■ **GENRE:** RACING

6 While basically *Micro Machines 2,* this version of the top-down tiny racing game was exclusive to the Sega Mega Drive. The game itself was already an enhancement of its predecessor, with different handling techniques that depended on the vehicles and new cars. *Turbo Tournament '96* added the track construction kit from the PC version of *MM2*, as well as updated tracks, meaning that Mega Drive owners could feel special and play the best version of the sequel too. This game wasn't produced by Codemasters but instead was contracted out to Supersonic, a company that was able to play to its strengths and produce a game that was the envy of other console owners at the time.

Sonic The Hedgehog

- **DEVELOPER:** SONIC TEAM
- **YEAR RELEASED:** 1991 ■ **GENRE:** PLATFORMER

4 **A true blue** classic. *Sonic The Hedgehog* was eventually bundled with the Mega Drive in a move by Sega's Tom Kalinske to draw interest away from the evil-sounding *Altered Beast* that was currently packaged with the console. This shrewd move allowed Sega's new mascot to go toe-to-toe with Mario – not that the fat plumber would ever manage to keep up with Sonic's blistering speed. Bold, sleek and cool, *Sonic The Hedgehog* was as much a statement about Sega's attitude as it was a superb platformer, and it's little wonder that it went on to become one of the system's best games.

Gunstar Heroes

- **DEVELOPER:** TREASURE
- **YEAR RELEASED:** 1993 ■ **GENRE:** RUN-AND-GUN

3 **Treasure's Mega Drive** debut is one of the greatest calling cards of the 16-bit generation. Packed with imagination, and pulling off graphical tricks that the machine was supposedly incapable of, *Gunstar Heroes* was a revelation upon release and remains a stunning achievement. Like many Treasure games it has superlative visuals, but also understands the importance of great gameplay. *Gunstar Heroes* has tight controls, a clever weapon system (you can combine weapons) and well-structured levels that culminate in fantastic, imaginative boss fights. Treasure would go on to release five more games for Sega's console, but its astounding debut is clearly your favourite.

Sonic The Hedgehog 2

- **DEVELOPER:** SONIC TEAM
- **YEAR RELEASED:** 1992 ■ **GENRE:** PLATFORMER

2 **What? More *Sonic*?** Oh yes – but then Sega's blue mascot was a major icon, and never more so than on the Mega Drive. *Sonic 2* was able to pick up on the momentum of the first game that pretty much every Mega Drive owner would have played to death, but Sega knew it had to be special. It was released on 24 November 1992 on an occasion that was dubbed 'Sonic 2uesday'. It became the Mega Drive's best-selling title and players once again collected rings and got Sonic to run as fast as they could, but in came spin dashing and Sonic's partner Tails, whom a second player could control. A genius solution to Sonic potentially dashing away was to have Tails make his way back to him automatically. *Sonic 2* is, and there is no doubt here, the hedgehog's finest gaming moment.

> "Streets Of Rage 2 is possibly the best game ever made. Would have given it 20 points if I could"
>
> THE LAIRD

Streets Of Rage 2

■ **DEVELOPER:** SEGA AM7 ■ **YEAR RELEASED:** 1992 ■ **GENRE:** SCROLLING FIGHTER

1 **We were surprised** that *Streets Of Rage 2* took the top spot as we genuinely thought that it would be a *Sonic* game sitting at the top of your list. Sega's superb sequel strode into the lead very quickly though, and soon began to amass huge support making it undoubtedly your number one Mega Drive game of all time.

Everything about Sega's sequel was bigger, bolder, and well… better. The most noticeable difference was the truly spectacular looking sprites that looked far beefier than the weedy looking efforts shown in the original game. The gameplay had also been greatly refined, with special moves being granted to each character, including an attack from Axel Stone that looked a lot like Ryu's Dragon Punch. As with Capcom's *Final Fight*, pulling off a special move was a great way of defeating multiple enemies at once and also granted you a small amount of invulnerability (at the expense of some of your precious health).

Such strategic use of these moves was vital in order to achieve victory in a game that was hard going no matter how good you became or what difficulty level you decided to play on. However, it was clear that Sega didn't go down the path of merely bolting on a few extras. It re-jigged the entire game and was bigger and better in so many respects, not least in the aforementioned chunkier characters that moved with far greater animation than before.

New characters were also introduced, namely Max Thunder, a huge lumbering tank, and Eddie 'Skate' Hunter, a fast-paced skater who, despite his young age, had no problem leaping onto the backs of strangers and punching their faces in. Blaze Fielding and Axel Stone also returned, ensuring that players would have no problem finding a fighter that would suit their playing style.

The co-operative fighting of the original once again came to the fore, allowing players to team up to pull off silly, showy moves that would decimate enemies and allow you to combat *Streets Of Rage 2*'s occasionally tough difficulty spikes. Bosses were tougher as well, and a lot more inventive, ensuring that you'd keep plugging away until you had scrapped your way through all eight stages.

Sega had even improved the excellent soundtrack, once again securing Yuzo Koshiro and Motohiro Kawashima to create some stirring tunes to accompany all the on-screen fisticuffs. It remains one of the best Mega Drive soundtracks of all time, with the musicians putting in just as much effort as the programmers to ensure that Sega's sequel was better in every possible way. Everything about Sega's ambitious sequel was massively enhanced, culminating in the best scrolling fighter for any 16-bit system. Hell, for many it remains the best scrolling fighter of all time.

Five reasons why it's great

Each character has their own unique moves and abilities

There are loads of weapons to pick up and use, from knives to metal bars

It has one of the best techno soundtracks heard in any videogame we've played

Graphically superb, the characters are arcade-chunky and the backdrops ooze quality

Action moves left to right and up and down giving a feeling of exploration as you biff opponents

The Making Of ...

The Revenge of SHINOBI

Following a run of disappointing arcade tie-ins, The Revenge Of Shinobi marked the start of great things from the Mega Drive. Stuart Hunt speaks to its director, Noriyoshi Ohba, to discover more about this significant Sega release

IN THE KNOW

» **PUBLISHER:** SEGA
» **DEVELOPER:** IN-HOUSE
» **RELEASED:** 1989
» **PLATFORM:** MEGA DRIVE
» **GENRE:** ACTION

The Mega Drive was hardly blessed with the most dazzling selection of launch titles. In fact, Japanese gamers had a measly two to choose from. The machine launched in Japan in 1988 with the forgettable couplet of *Space Harrier II* and *Super Thunder Blade*. Both unremarkable sequels to Sega coin-ops, these were followed by a port of the okay *Altered Beast* (*Juoki*) later that year, which marked the console's first legitimate arcade port. Though Sega was billing the Mega Drive as a machine capable of bringing the true arcade experience to the home, it's fair to say that had things continued down this path, the future would have looked pretty bleak for the console. Thankfully, they didn't.

In December 1989, Sega released two Mega Drive games that turned the tide for its brand new machine: a solid 16-bit port of its successful *Golden Axe* coin-op and a great sequel to one of its popular arcade hits. That sequel was *The Revenge Of Shinobi*, and it very quickly became a must-own title. Looking better than anything that had appeared on a home console or computer up to that point, it was the first Mega Drive release that really opened people's eyes to what the machine was truly capable of delivering, something its director and *Shinobi* creator, Noriyoshi Ohba, puts down to the game's success.

"We were adamant that *The Revenge Of Shinobi* would make full use of hardware functions available at the time," reveals Ohba. "If you look at its backgrounds, for example, in usual Mega Drive games there are only two layers of scrolling. However, in *The Super Shinobi* [*Revenge Of Shinobi*'s Japanese title] there are three to four in many stages, and this added a lot of depth that just wasn't seen in Mega Drive games at the time."

As well as clearly showing people what that technological jump to

» *The Revenge Of Shinobi* features a who's who of Eighties pop culture icons, cheekily used without seeking permission from the property holders.

Shinobi was designed to be played for about three minutes with one coin, *The Revenge Of Shinobi* was a console game and cost considerably more. It was also a much bigger game, so introducing a damage system was much more suitable."

"Nobody took credit for dropping the hostages; it just happened as a result of the idea to use the story as the backbone of the game," continues Ohba, referring to the first game's hostage-rescue mechanic. "We thought doing so would add depth throughout the game. And so the story of *The Revenge Of Shinobi* was to rescue Joe's fiancée, a much more important hostage!"

While all hostages bar one were removed, all other aspects of the

UNFIT NINJA

DESPITE BEING CREATED on the most powerful games console of the time, there was still one small thing that Noriyoshi Ohba wished to include in *The Revenge Of Shinobi* but was unable to squeeze into the finished game. So what was it that was unable to make the finished cut? An obedient canine companion, perhaps? A cool Lightsaber weapon for Joe to wield? A giant battleship boss to fight? A pair of Wrangler jeans and a checked shirt for Joe to slip into on certain stages? An enemy that resembled Robert De Niro? It's none of the aforementioned, actually. "We wanted to include bonus stages. However, we realised that they were not going to fit in the available memory. Unlike optical devices, which are commonly used nowadays, we were limited by the amount of available memory, as ROM was very pricey."

16-bit looked and played like, *The Revenge Of Shinobi* represented a title that also showed a clear change in thinking happening with regard to how best to transfer popular arcade properties to home consoles. Typically, arcade games were designed in such a way as to offer simple and easy-to-grasp gameplay, quick frills and alluring graphics to suck people in and separate them from their cash as quickly as possible. They were therefore designed to be fun, challenging and reasonably short. Sega realised early on that these types of games not only made up a considerable chunk of its popular IPs at the time but also that these offerings might not sit well with gamers being asked to part with around 5,000 yen. This was most likely the reason why the machine launched in Japan with two sequels to popular coin-ops rather than straight conversions, but it was most certainly in the mind of Ohba when he started considering how best to approach creating a home console sequel to his 1987 ninja-based classic. It was his intention to produce a sequel that touched on the salient gameplay pillars of the original, but extended them to support a weightier story and elevate the franchise.

In the original coin-op, Oboro clan ninja Joe Musashi was tasked with rescuing the kidnapped children of

It was a far more personal mission for Joe, purposely thought up to evoke a more epic feel for the sequel

several world leaders – or children of the fellow Oboro clansman if you're playing the Japanese version – from a criminal organisation called Zeed. After their plans are foiled, in the sequel Zeed reforms under a new banner, Neo Zeed, then kills Joe's master and kidnaps his fiancée, Naoko. Now wanting revenge, hence the title, it was a much more personal mission for Joe, one purposely thought up to evoke a more epic feel for the sequel. To achieve this, however, a few changes to the original gameplay would need to be made, which Ohba points out.

"The biggest difference between those two titles was the introduction of health points," he explains. "In the original *Shinobi*, you died when you are hit once, but in the sequel Joe has HP. We designed it this way because while

original *Shinobi* made it across relatively unscathed. During certain stages Joe could hop between the foreground and background to get around and attack enemies, and his main method of attack remained his signature throwing

» Unlike in the original, the sequel featured some tricky platforming sections to overcome.

» There are several stages that feature the dual-plane mechanic from the original *Shinobi*, allowing Joe to freely hop between the foreground and background.

» The second stage's boss might seem tough, but a bit of Karyu magic makes short work of him.

stars – although now they were limited in number, which made the game far more challenging – only pulling out his sword for close-quarters attacks. Joe also kept his useful ninpo magic, but this was tweaked to offer a far greater influence on the gameplay, with players given the choice of which particular ninja art they wished to summon. The new selection of spells came in four flavours: Karyu, the art of fire, which caused several flaming dragon columns to emerge from the ground and sweep across the screen; Mijin, the art of pulverising, a powerful magic that causes Joe to explode at the cost of a life but replenishes his ninpo stock; Fushin, the art of floating, which heightened Joe's agility; and finally Ikazuchi, the art of thunder, which creates a shield of lightning that can absorb four enemy attacks. Each offered Joe a useful tool – and sometimes not always an obvious one – for certain stages and getting out of sticky

situations. This is something that becomes especially pertinent when we broach the topic of the game's harsh difficulty level, which Ohba told us was intentional, as he wanted to design the game in such a way as to make the player think about how they could beat it. He then went on to explain to us how the magic assisted Joe and made finishing the game easier for players.

"Stage 2-3's boss, Shadow Dancer, can be beaten very easily using Karyu, as this technique inflicts damage eight times. Alternatively, the player can also use Mijin, which again causes eight damage hits. Stage 7-3's boss, Ancient Dinosaur, can be beaten using three hits of Mijin, but if playing in a higher difficulty you need eight. No matter how hard it is to beat, the Ancient Dinosaur can be easily defeated if you have four lives left at that stage. It is difficult to complete stage 7-2, but it is made easier if you use Ikazuchi. Finally, stage 6-1, Chinatown, is where you need to perform some of the longest jumps in the game. This stage was therefore designed so that you do not die if you fall. It's also made easier if you use Fushin."

One of the most iconic aspects of *The Revenge Of Shinobi*, and what many fans remember most, is its memorable cast of enemy characters, many of which famously impersonated pop-culture icons of the time. Enemies in the game sent up movie stars (Arnold

Schwarzenegger and Sylvester Stallone), comic book heroes (Batman and Spider-Man) and even a famous rubber suit (Godzilla), and as permission was never sought by Sega at the time, these contentious bosses would force the developer to release numerous revisions of *The Revenge Of Shinobi* over the years, each having the offending boss sprites gradually altered and changed. This bizarre practice actually went on as recently as 2009, when a completely sanitised version of the game finally appeared on

> ## " The Revenge Of Shinobi defined where one generation was finishing and a new one was beginning "

Nintendo's Virtual Console service. So why did many of the characters resemble familiar faces? Well, we can finally reveal the answer.

"I made some rough sketches of characters from my mind and from some photos due to my lack of drawing ability," reveals Ohba. "They were meant to be used as a rough example. Unfortunately, the designer of the sprites reproduced my drawings a bit too faithfully and you know the end result. I personally think that if the designer had tried to show more of his own personality in those characters, they would have looked a lot different to the originals. Those bosses were created by taking each one's weak point and how to kill them into consideration. We created each of them considering what you specifically need to do to kill them, what movement you need to use to avoid the boss's attack, and then arranged them in order of difficulty."

As well as looking the part, being a truly great expansion of the original game, and coming loaded with a memorable roster of characters, *The Revenge Of Shinobi* had a classic soundtrack written by revered videogame musician Yuzo

CHANGE CLOTHES

ANOTHER OBVIOUS CHANGE that occurred in *The Revenge Of Shinobi* was to Joe's appearance. In the original 1987 *Shinobi*, the confident ninja went about his rescue mission brazenly unmasked and dressed in a charcoal grey suit that looked like it was hired from a local fancy dress shop. For the sequel, though, his style was given a rethink. Joe's face was not only concealed but he was also kitted out in a far cooler red and white shozoku. A more angelic look that has since become synonymous with the character, it has been worn by him in

every *Shinobi* game he's appeared in since – unless, unlike us, you're someone who counts the terrible *The Revenge Of Shinobi* GBA game, which stars a nameless ninja dressed in a blue suit. Ohba explained to us that the reason why his look was changed for the Mega Drive *The Revenge Of Shinobi* is pretty innocuous. "Usually ninjas wear black clothes for camouflage, to hide in the darkness. However, we felt black clothes made him look like a bad guy, so to make him look more like a hero we changed his clothes to white."

Koshiro. He began his career at Falcom, and as well as *The Revenge Of Shinobi* his music has serenaded gamers through *ActRaiser* and the *Dragon Slayer*, *Ys* and *Streets Of Rage* series. Koshiro was working freelance at the time, and it would mark his first assignment for Sega. Eager to impress, he delivered an unforgettable composition that went on to further cement the game's classic status. A mixture of techno, house and electronic influences but blended with traditional Japanese instruments, it underlined the clear East-meets-West theme of the series. So was Koshiro given any direction with regard to how the music should sound, or was he simply left to his own musical devices?

"All I asked him was not to make the music sound like a traditional Japanese game. Other than that,

Mr Koshiro composed the music tracks freely," answers Ohba. "When it came to the sound effects, I did make a lot of specific requests and went into quite a lot of detail, as I had a strong idea of what sounds I wanted. As a result, there were occasions where I did ask him to recompose them."

The Revenge Of Shinobi took around six months to develop, and during that time it progressed relatively smoothly. Few technical headaches were encountered, and Ohba puts much of this down to the hardware.

What may surprise many fans, though, is that when the game was complete, Ohba felt Sega's expectations were quite low. He, on the other hand, was confident that his game would prove a hit. And, as we all know, it was.

One of the first killer apps for the Mega Drive, *The Revenge Of Shinobi* was a title that really helped define that point where one generation of gaming was finishing and a new one was beginning. Ushering in a new era for the *Shinobi* series and videogames as a whole, it raised people's expectations and marked the start of many great things to come from the 16-bit console era.

DEVELOPER HIGHLIGHTS

ALEX KIDD IN SHINOBI WORLD (PICTURED)
SYSTEM: MASTER SYSTEM
YEAR: 1990

SHINOBI
SYSTEM: ARCADE, VARIOUS CONSOLES AND COMPUTERS
YEAR: 1987

STREETS OF RAGE
SYSTEM: MEGA DRIVE
YEAR: 1991

ROCKET KNIGHT ADVENTURES

GREATER THAN THE OPOSSUM OF ITS PARTS

» **PUBLISHER** KONAMI
» **RELEASED:** 1993
» **GENRE:** SIDE-SCROLLING PLATFORMER
» **FEATURED HARDWARE:** MEGA DRIVE
» **EXPECT TO PAY:** A FEW QUID

HISTORY

Though *Sparkster* and *Rocket Knight Adventures 2* were solid games, for me the first game is the best in the *Rocket Knight* series, meshing brilliantly a cutesy action platformer with the kind of imaginative level design, memorable bosses and ferocious difficulty you'd expect to see in Konami's *Contra* series. This is no coincidence, as the series was the brainchild of Nobuya Nakazato, the designer of several *Contra* games including the acclaimed *Contra III* and *Contra: Hard Corps*.

For those unfamiliar with the character, Sparkster is a knightly opossum armed with a sword that can fire energy bolts and a rocket pack that lets him zip merrily around the screen. Most of the time this whizzing ability is used to help him reach inaccessible areas but in some stages it is used to a much more tactical and challenging effect, particularly the penultimate one – a taxing castle comprising of deadly booby trap rooms – where success depends on using it accurately.

Rocket Knight is a well designed platformer, and each one of its six stages tends to feature something cool and interesting. This could take the form of a well-designed section of a level to tackle, or just some lovely visual effects – such as the level in which you must use the mirror properties of some glassy lava to see the platforms you need to jump on. Add in a few stages that play out like a side-scrolling shooter, and *Rocket Knight* is a solid game, one that contains more depth and variety than the average platformer.

The visuals are also of a high standard, with in-game cutscenes and even incidental stuff going on in the background of some stages. And there are some neat visual effects. The boss battles are equally imaginative, with our favourite the one in which you get to jump inside a giant robotic pig suit and fight *Rock 'Em Sock 'Em Robots* style.

With lavish presentation and varied levels, *Rocket Knight* is a solid platformer, which, tucked in amongst that colourful throng of 16-bit anthropomorphic platformer heroes that burst on the scene in the Nineties, may have passed some gamers by.

Was it really as simple as Super Hang-On with fighting, or was it so much more? Adam Barnes looks back at EA's motorbike racing game to discover what truly made it stand out

RASH

C onsidering videogames' penchant for violence, it seems like such an unusual thing to praise *Road Rash* for – but among its stablemates this was perhaps the element that most stood out. Sega's own *OutRun* and *Hang-On* had already been pinching pennies from addicted gamers in the arcades, so when they finally came over to the Mega Drive it was only natural they'd be met with something of a furore. Even Taito's arcade racer, *Chase HQ*, and its predecessor, *Full Throttle*, had set something of a standard for this particular breed of into-the-screen racer, so when EA wanted to bring its own take on the thrills of motorbike racing, it needed to pull out all the stops. It didn't have the arcade heritage, after all, so *Road Rash* needed something to stand out, it needed something advantageous to become a critical and commercial success.

By the time of its 1991 release on the Mega Drive, *Road Rash* already had a template with which to concern itself. While racing against other ▶

ROGUE'S GALLERY

Meet the various rivals looking to put you on the ground

NATASHA

BIFF

SLATER

IKIRA

SERGIO

HELLDOG

O'ROURKE

O'LEARY

FLYNN

O'CONNOR

» There was a sense of place and scale to *Road Rash* that most racing games didn't seem to have. It felt like you were heading into the horizon, rather than a static backdrop.

▶ competitors you would need to navigate the various bends and trials of the US highways. As with *Super Hang-On* the trick was in the careful manipulations as you turned, ensuring each corner was taken at the perfect combination of speed and correct angle. *Road Rash* mimicked that sensation elegantly, but the thing that made it feel so *different* wasn't nearly as graceful. Among the various challenges you'd encounter – such as the oncoming traffic and the corners – the addition of vehicular combat added a whole new dimension. Riders could kick and punch each other, lowering their stamina and their ability to stay atop their bikes, opening a whole new element to the racing genre. Rather than most combat games where the environment was stationary, here, with *Road Rash*, it was ever changing, and how you could react to your opponents was affected completely by your situation. Notice an oncoming car? Well that's the perfect opportunity to launch a rival into its path, timing your shunt *just* right to put them out of the race. Not permanently, of course, but it was an advantage all the same. Or how about slightly nudging them closer to the edge of a particularly sharp corner, causing them to career off the track onto

» To proceed to the next level you had to place at least fourth or better in the difficult races.

the rough terrain and (most likely) into a passing tree or road sign. It brought a whole new level to the racing genre, and helped solidify the game's status as a must-have.

But there was more to it than that. Where other racers of the time had implemented hills and undulations in their tracks, none matched *Road Rash*'s physics system. An incline would slow the bike allowing for a very realistic feel to the bikes themselves. It allowed for truly exciting races as you barrelled down a hillside and sped around a bend, and the physics even enabled you to hop over the peaks of certain hills and launch yourself high into the air. The added challenge of having to adapt your turning while doing so on an incline was something of a revelation at the time. This was *Road Rash*'s advantage: while *Super Hang-On*'s sense of speed was a thrill, it was artificial. Even *Chase HQ*'s use of bumps had little impact on your actual speed, which made *Road Rash* feel all the more compelling.

But where *Chase HQ* had you playing as the good guys – the right side of the law – *Road Rash* stayed

» After completing a race you were given a race results screen which depicted your crew of Rashers hanging out together at a pit stop of some kind.

> " **It brought a whole new level to the racing genre, and helped solidify its status as a must have** "

in keeping with its renegade street racer appeal. Here, the police were a threat, a means of weeding out the weaker players not able to keep up, or punishing the lax racers unable to ride safely. It wasn't common to be arrested early on in the game, but as the difficulty in stages ramped up, it became as hard to stay on the track – and, therefore, your bike – as it was to shake the increasingly tougher rivals and police force. By the end, having not seen the failure screen prompt 'Busted!!!' would have been something of a feat.

Road Rash being released on the Mega Drive was something of a necessity, then. The console was capable of the higher speed calculations that were really needed to match the arcade feel

that EA had so clearly wanted to recreate, and that sense of speed couldn't have happened elsewhere. Electronic Arts was emboldened by its successes on the Mega Drive, yet it was Road Rash that advertised what was capable on the machine. While Sega would focus on its own Super Hang-On – and the title's arcade heritage meant that was a safe bet for the console manufacturer – gamers in the know would flock to EA's motorbike racing game. The popularity imbued further success for the thriving developer and publisher, but it also lead to expansion for the franchise. Sequels were expected, but the original itself saw it ported to a heap of different platforms from the technically comparable but much slower Amiga version or the considerably weaker portable versions on Game Gear and Game Boy. The 1994 3DO version was the real treat, however, featuring a truly 3D rendering system that – pre-PlayStation – was something of a technical achievement. Its cheesy live action video opening – even ▶

» There were five tracks each themed on specific Routes in California. As you progressed through the levels, these tracks became longer and harder.

» There's something immensely satisfying about taking a club to an opponent's head and watching them fall off their bike.

BIKER HEAVEN

The eight bikes that will make you king of the road

SHURIKEN 400
■ As the starting bike, you can imagine it wasn't particularly quick, but it at least was good for keeping you on the road and therefore a pretty easy bike to begin the game with.

SHURIKEN 1000
■ The heavy weight of this bike made it lumbersome to survive quicker, sharper turns: its speed often sending you off the track. Most favoured bikes with better accuracy.

PANDA 600
■ This was a bit of a vague upgrade, really, offering only a improvement to your starting bike in terms of power. For the cost, most players realised it was better to ignore it.

FERRUCI 850
■ The combination of high speed and great handling made this desirable, but you had to be good – it took skill to keep it on the track and couldn't handle very many crashes.

BANZAI 750
■ It's likely you'd have wanted this option when you reach the second level of stages. Its speed meant you could keep up, but it was tricky to maintain that speed around corners.

PANDA 750
■ The penultimate upgrade that only offered marginal improvements to speed and handling over the Ferruci 850. If you have the Ferruci, it was worth saving cash and ignoring this one.

KAMIKAZE 750
■ It was either the Banzai 750 or the Kamikaze 750, the latter of which was heavier and tough to get around corners. Acceleration was better, but you'd have to brake more to survive a race.

DIABLO 1000
■ The fastest, nimblest bike available but at an incredibly steep price. You wouldn't get this until later in the game, and even then you needed to be smart about braking to survive.
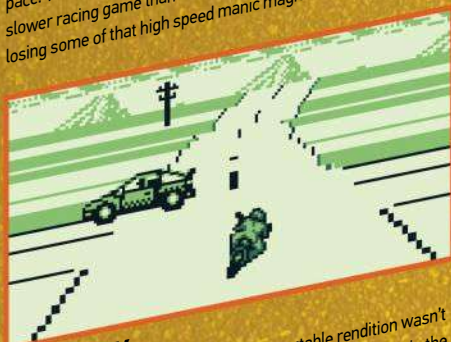
CONVERSIONS

Road Rash didn't just appear on Sega's Mega Drive…

AMIGA
■ Though there was only a slight downgrade in visuals when *Road Rash* was brought over to Amiga, the real issue was the pace. The mechanics remained as slick as ever, but it was a much slower racing game than the quick Mega Drive original – thus losing some of that high speed manic magic.

MASTER SYSTEM
■ For the most part, everything remained intact for the Master System version, but weaker visuals meant it didn't look the part compared to its more high-powered counterpart. Often present your speed to you in a way its precursor had. highlighting this version's inability to you'd vault into the air, too,

GAME GEAR
■ As you might expect for Sega's handheld, this version of *Road Rash* struggled to replicate that overall 3D design of its counterparts. It still maintained a very stable, solid core experience, though, and it was a commendable effort considering the limited hardware it was on.

GAME BOY
■ Unlike its Game Gear equivalent, this portable rendition wasn't quite as enjoyable. It was understandably difficult to maintain the visuals on the Game Boy's monochrome screen, but worse still were the controls which made it extremely slow and unwieldy to play. This is one to avoid, if we're honest.

SEGA CD
■ By utilising the big storage capabilities of the disc it arrived on, the Sega CD version of *Road Rash* brought with it cutscenes (as was the case with many Sega CD games) and some improved visuals. There was even a set of backing tracks replacing the chiptune with drums, guitars and even vocals.

3DO
■ For the effort involved this may well have been considered a sequel, but having been named simply '*Road Rash*' the distinguish is hard to make. It brought over the live action videos of the Sega CD version but added them to a whole new 3D engine that, for its time, was phenomenal and caused jaws to drop.

> **By the time the 3DO version was ported to PC interest had already begun to wear thin**

ROAD RASH SEQUELS

Every game in the rough-and-tumble franchise

ROAD RASH II
■ The quick turnaround of this sequel – it came only a year after the original – meant that there wasn't much new to the experience; more bikes, more environments, the inclusion of split-screen multiplayer, and improvements to the menu navigation issues of the original meant this was about as complete a package as it needed to be. It also added the now-iconic chain weapon to the foray.

ROAD RASH 3: TOUR DE FORCE
■ Once again appearing on the Mega Drive – this time in 1995 – this version brought with it seven different locations across the world, upgradable bikes and a collection of different weapons – now eight in total – to round out the combat experience of the game by even allowing you to carry multiple weapons.

ROAD RASH 3D
■ This PlayStation game was more of an upgraded version of the 3DO version and maintained the sense of speed that the series had been known for. Combat was pared down slightly, but the stronger opponents meant that the brawling could go on for much longer. It lacked many fancy extras, but it got the experience just right.

» Police officers were a much bigger threat in later levels and – much like many of the AI rivals – differed in how aggressive they were.

replete with Soundgarden's *Rusty Cage* as a backing track – might've done enough to sell the concept to excited fans, but it was the in-game graphics that really blew players away.

By now there's probably something of a question to ask: *Road Rash* really was one of the better racing games of its time, so what happened to EA's stalwart motorbike game? Well the answer comes along with examples its brethren, too, the likes of *OutRun* and *Super Hang-On* that – ever since the Mega Drive – haven't really maintained the same success. EA, of course, made sequels to *Road Rash*, but the move to 3D was not particularly a good one for the series. *Road Rash II* arrived a year later on the Mega Drive with little more than a split-screen multiplayer feature – rather than the turn-by-turn method of the original – a handful of new bikes and a chain to use as a weapon. After that came *Road Rash 3: Tour De Force* in 1995, but again offered the same again, yet

with different locations from across the world. By the time the 3DO version was ported to PC and a new 3D PS1 game was released in 1998, interest had already begun to wear thin and the new PlayStation era was a tough bridge for the series to cross. Crashes became impossible, instead you'd experience illogical ricochets after hitting a car or other obstacle, and while weapons would still feature, it became a much less important aspect to the franchise. The original *Road Rash* may well have been a product of its time, but its violence was as much its identity as its motorbikes. Sure, it was a simple addition to make – but it brought something completely new to the genre that would brand itself on the minds of Mega Drive owners everywhere. It is funny how a simple spot of violence can get gamers excited. ✳

ROAD RASH 64

■ As impressive as the character and bike models had been for the N64 version, it still managed to look rather ugly – especially if you got out in front with nothing but the open road for company. Combat was especially weak here, while the driving itself didn't manage to achieve the right balance of speed and tactility.

ROAD RASH JAILBREAK

■ The PS1's *Jailbreak* offered much better visuals than its N64 equivalent, but a sort of silliness that the series hadn't really been known for. Combat remained weak, however, though it did allow for some power attacks that were fun to use. A GBA port was released, too, that actually provided an experience very similar to the original.

IAN FISCH How *Road Rash* inspired *Road Redemption*

What was it you enjoyed about *Road Rash*?
I think that what makes *Road Rash* great is that it's a combat game where the environment is constantly changing, as opposed to if you play most third-person combat games these days it seems like you're essentially in a flat arena, like a wrestling ring almost, and you just fight everyone and the environment doesn't really come into play. But with *Road Rash* the environment really determines what you can do to your opponents.

Do you think violence was a big factor for the game's enjoyment?
Yeah, I think violence is always a big factor when it comes to action games. I mean, I understand that it doesn't necessarily directly affect gameplay, but if you're playing *Call Of Duty*, if you're not getting that big reaction when you shoot someone with the blood spurt and the dramatic death and if, for instance, you shot a laser and they just blinked out of existence it would take a lot of the fun and satisfaction away. And I think *Road Rash* is the same way.

Why did you decide to try and reboot this type of game with *Road Redemption* now?
There are some games that you can remake right now

and all the technological advances we've made in videogames and computers isn't going to make the game necessarily better. For instance, any game that is primarily in 2D. I guess *Sonic The Hedgehog* might be a good example; you can make a new version of *Sonic* using modern 3D graphics but it's not going to really be the same game, and it's not even necessarily going to be better than the originals in 2D. Whereas *Road Rash* was always something where the technology hadn't quite caught up to the game's vision, in terms of having realistic physics, having a lot of cars and riders on the road, in terms of being able to run competent AI with all that going on.

Did you replay the original for inspiration during development?
Absolutely. We used it as a reference – which parts of the series worked and which parts didn't. What worked is the ways you can have these engagements with other riders, and we realised that's a hard thing to do. The original 2D games had you strafing back and forward in the screen and your enemies kind of glued to your space, in the 3D versions it's easy to do that, which is why they didn't rely on combat.
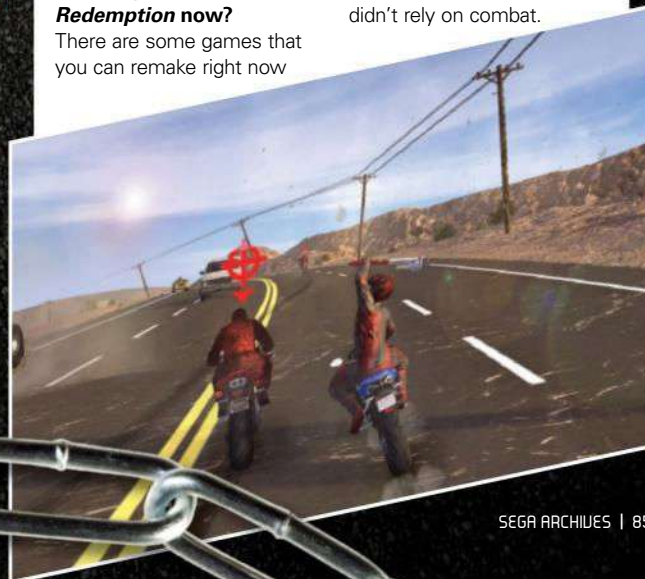
Talk to anybody about console add-ons today, and they'll tell you one thing: they just don't work. Microsoft's much-touted Kinect is dead in the water after an initial wave of popularity, the PlayStation Move is in the same boat and the less said about the 64DD, the better. But of all the add-on devices throughout gaming history, two come in for high criticism above all others: Sega's Mega-CD and Mega Drive 32X.

If the conventional wisdom is that console upgrades don't work, these are the devices that granted us that wisdom. The Mega-CD sold 2.24 million units internationally over a four year lifespan, reaching only a small percentage of the world's 30 million Mega Drive owners, and added 210 games to the console's library. Far fewer 32X units were sold, and the system was discontinued after less than 18 months on the market with just 40 games released. Neither machine was a commercial success. Players have often questioned how and why the company botched two hardware releases in quick succession, and to find the answer it's necessary to cast your mind back to the early Nineties.

25 years ago, there was no widespread belief that console upgrades were a bad idea. In fact, the prevailing opinion was quite the opposite. The Japanese console manufacturers touted all manner of upgrade options for their machines, usually copying one another – when NEC announced a keyboard and a PC interface for the PC Engine, Sega naturally responded with a keyboard, a modem and a floppy disk drive for the Mega Drive. While very ▶

SEGA'S BIG GAMBLE

Extending the life of the Mega Drive might have seemed like a safe bet, but Sega lost consumer trust trying it. Nick Thorpe asks how a dead cert turned out so wrong…

» Thanks to colour limitations, an ugly grainy look characterised most Mega-CD FMV games.

few of these devices ever made it to market, each manufacturer had some experience by 1991. Nintendo had released the Famicom Disk System, a reasonably popular interface for low-cost rewriteable disks. Sega had produced the likes of the Mark III FM Unit, a sound-boosting add-on, and the Mega Drive Power Base Converter which added backwards compatibility.

However, the goal everybody had their eye on was CD-ROM. More accurately, Sega and Nintendo had their eyes on CD-ROM because NEC was already there, having released a CD-ROM drive for its PC Engine console in 1988. Though it had been slow to gain momentum, by 1991 CD releases were starting to outnumber those on the PC Engine's HuCard format. For its part, Nintendo had started work on a CD-ROM upgrade in partnership with Sony long before the SNES had been released. If Sega didn't pursue such a device, it would invite criticism from observers and its investors.

What's more, Sega's management was convinced that videogames would soon move away from ROM cartridges. "We were pushing for CD-ROM because we knew

» Core Design did excellent work, pushing the Mega-CD's scaling capabilities to the limit.

that eventually we were going to have to program for it, and nobody knew how to," says Tom Kalinske, CEO of Sega Of America during the Sega CD's lifetime. "We had grandiose visions of what it was going to mean, I remember we were talking about being able to incorporate movie graphics with rock and roll concert sound, as well as 3D animation – this was going to be a fantastic thing. That was the dream."

I f that sounds ambitious, it's because it was. Sega's vision was more ambitious than that of NEC, at the very least. The PC Engine's CD-ROM peripheral added a new storage medium and an additional 64KB RAM (256KB in the 1991 Super CD-ROM model). The Mega-CD did a whole lot more. A second Motorola 68000 CPU, clocked at 12.5 MHz, was added to the 7.67 MHz one already present in the Mega Drive. The system also received a RAM upgrade, with an additional 512KB main RAM, plus 256KB for video and 64KB for sound samples.

That wasn't all, though. A custom graphics chip and a Ricoh RF5C164 sound chip were also added to the system. In practice, this meant that the system could scale and rotate sprites – rather like the much-touted Mode 7 feature on the SNES, but with the ability to handle more objects simultaneously. The machine also gained the ability to play full-motion video clips. In terms of audio, the most obvious difference was that the machine could stream high quality audio from the CD, but the Mega-CD also provided a number of additional sound channels and improved sample playback for chip-based audio.

Mega-CD games could, in theory, outperform those on the stock Mega Drive and initial excitement was high as a result. The Mega-CD initially launched in Japan in

» The 32X cartridge slot is slightly wider than a regular Mega Drive cartridge slot, making it useful as a makeshift import converter.

KEY COMPANIES
The larger third-party developers and publishers stayed away from the Mega Drive's add-ons, allowing less well-known companies to achieve prominence…

CORE DESIGN
SIGNATURE GAME:
Thunderhawk

■ The UK studio is one of the most technically proficient developers to have worked on the Mega-CD, pulling off impressive games such as *Battlecorps* and *SoulStar* which made heavy use of sprite scaling effects to create 3D environments. However, Thunderhawk was easily its biggest commercial hit on the system.

DIGITAL PICTURES
SIGNATURE GAME:
Night Trap

■ The most enthusiastic proponent of FMV-based games did a huge part to shape the image of the Mega-CD with its software, with *Sewer Shark* forming part of a popular bundle and *Night Trap* generating major controversy. DP is notable as the only third-party developer to have supported the 32X with disc-based software.

WOLF TEAM
SIGNATURE GAME:
Road Avenger

■ Wolf Team was prolific on the Mega-CD, releasing 12 games in the machine's first two years. Many players will have encountered its games at some point, as *Sol-Feace* was part of bundles in both North America and Europe, while *Cobra Command*, *Road Avenger* and *Time Gal* all ended up in European bundles.

GAME ARTS
SIGNATURE GAME:
Lunar: The Silver Star

■ *Silpheed* was a rare case of a Mega-CD game that truly looked like a giant leap above standard Mega Drive fare, but the shoot-'em-up was easily eclipsed by the *Lunar* games. These RPGs became cult hits and are amongst the best releases on the system. *The Silver Star* was re-released on iOS in 2012.

ACCLAIM
SIGNATURE GAME:
Mortal Kombat II

■ The only third-party publisher to commit to the 32X in any meaningful sense was also emblematic of its problems. All of the company's games were enhanced versions of standard Mega Drive games, bulking up the library for those who had already bought in without offering anything to entice players to upgrade.

" I showed my son what Mega-CD games were like. He said 'This is horrible, I don't want to look at this!' He was right! "

Tom Zito

were doing some work on it, so that was how we all got together on this and decided to divide the work that Tom Zito had been doing."

nlike other developers, which had been confronted with the improved hardware and struggled to come up with ideas, Digital Pictures already had the ideas in the form of games featuring live-action video footage – they had just been waiting for the hardware that could realise them. "Back in the Eighties, we had developed both *Sewer Shark* and *Night Trap* as two games for the Control-Vision system, which was the games system we had developed at Isix for Hasbro that was going to use VHS tapes as the medium of software," explains Tom Zito, former CEO of Digital Pictures. Hasbro cancelled the release of the system shortly before launch, as it couldn't be launched for the price point that the company had envisioned. Signing up with Sony to make the games for the SNES PlayStation had proven similarly fruitless. "We basically sat around for several months waiting for a development machine, and finally Olaf called me and said, 'You know what, it's not going to happen. We just weren't able to work out the deal.' I thought that was the end of everything."

The third time proved to be the charm, as the Mega-CD proved able to handle video – albeit with some serious coding work, as there was no off-the-shelf ▶

» Here's *WWF Raw* on the standard 'vanilla' Mega Drive…

» …and here's the 32X version. Would this have sold you on the upgrade?

DID YOU KNOW?

■ The Multi-Mega never officially reached Japan as a games console, but it was licensed to Linguaphone which branded it the Education Gear.

December 1991, and by March 1992 it had already sold an impressive 200,000 sales. However, reality soon intruded on the dream start. Most of the Mega-CD's technical benefits were not made obvious, as early third party software offered little that the Mega Drive couldn't do save for some nice CD audio. In fact, quite a few of those games were converted back to cartridge for international release. Sega's own support was woefully lacking, with the platform holder publishing just five games during the machine's first year and squarely targeting the Japanese market with them. Disappointing software and the Mega Drive's low popularity in the region meant that this initial momentum stalled during the remainder of 1992, and the machine never recovered in Japan – the next 200,000 Mega-CDs took three years to sell, rather than three months.

In order to put together a stronger line-up for the North American launch in October 1992, Sega had to involve Western development talent. "I was very close to Olaf Olafsson at Sony, and his studio down in Santa Monica," Tom recalls. Sony had been working on CD-ROM games for the PlayStation (at that time, an all-in-one SNES CD console), but had recently been spurned by Nintendo in favour of Philips and was all too keen to help its primary competitor. "We knew they

» Even with frames edited to suit the console, FMV games like *Cobra Command* exposed the Mega-CD's poor colour handling.

» *Metal Head*, like many 32X games, was visually distinct from Mega Drive fare – but struggled to offer strong gameplay.

codec available to do the job. There was one major fly in the ointment for Digital Pictures, though. For all the Mega-CD had expanded, the Mega Drive's severely restricted colour palette had remained untouched, lending FMV a grainy look. "About a year ago, I found a box with a Genesis and Sega CD, so I showed my son what the games were like. He said, 'This is horrible, I don't want to look at this!' He was right!" Still, it wasn't something Tom Zito was concerned about. Digital Pictures' Mega-CD games looked like nothing else on the market, and by this point nobody was too concerned about how the machine would do. "We didn't think about that, we were just pleased to finally get the games made," he recalls.

"Our plans were, I think it was for two or three hundred thousand units of hardware in that first period, and then I think we expected it to grow beyond that," says Tom Kalinske when asked about Sega's expectations for the machine. While production problems limited the Sega CD's NA launch, it did reach the 300,000 unit mark by March of 1993. The European launch in April 1993 was received with similar enthusiasm.

I t was that year that would turn out to be the machine's peak, as developers were able to deliver on the hardware's potential by this point. Malibu Interactive offered up an awesome sprite scaling driving game in the form of *Batman Returns*, which showed that the Mega-CD could pull off a convincing impression of coin-op technology. Core Design delivered the likes of *Jaguar XJ220* and *Thunderhawk*, both of which also made extensive use of sprite scaling. Sega's Japanese teams finally released some big hits too, having put together an excellent conversion of Capcom's *Final Fight* as well as the obligatory *Sonic* game.

However, the overall impression of the machine wasn't overwhelmingly positive. While the highlights were there to be found, many games amounted to

little more than cartridge releases with enhanced soundtracks and FMV elements. "I think that was a valid criticism," Tom Kalinske admits. "We didn't bring enough new to the party. It wasn't as different as it needed to be. Later on, one of the advantages was its tremendous storage capacity so it was great for bringing back a collection, but just doing cartridge games on a CD-ROM was not a step forward."

By this point, the Mega-CD was stalling commercially. Late in 1993, Nintendo Of America's Peter Main stated, "My friends over at Sega haven't found a market for CD at $299. Sega CD is dead in Japan, dying over here and suffering in Europe." It was a damning statement, as should be expected from the representative of a competitor, but it was the truth. The Mega-CD's sales had flatlined in Japan. In Europe, software for Commodore's new Amiga CD32 was outselling Mega-CD software. By the end of the year, it was clear that the Mega-CD would never be a mass-market hit.

The problem with the Mega-CD was one of value. All of the extra capabilities that had been added to the machine gave it an enormous price tag of £269 – a little over double the £129 that the Mega Drive and SNES were retailing for. How much did this hurt the system? "I think quite a bit," Tom Kalinske says. "In those days that was a really expensive product, and that certainly limited the potential market considerably."

This was a problem that Sega was aware of and tried to mitigate – in both the UK and the USA, the machine was bundled with more than one game at launch, and later packages included as many as five CDs. Ultimately though, the hardware only fell to an attractive price point in 1995, when people were perfectly content to hang back and get a brand new console.

Was the Mega-CD technologically advanced? Absolutely, but it wasn't so much so that it was worth twice the cost of the basic console. Most of its benefits were tough to sell – static screenshots couldn't convey the effect of improved scaling or CD audio, after all. To the average consumer Mega-CD games like *Final Fight* and *Sonic CD* didn't look a great deal different to what was available on the Mega Drive.

The only games that seemed markedly different to existing cartridge games were the FMV-based games. However, even the novelty of these failed to hook players. "We really thought that there was a big range of games that we could do for this that had never been done before," says Tom Zito. "We had hurtled into the Sega CD business without thinking if we were still getting into the field we were getting into – a more casual gaming experience." The price of the Mega-CD meant that the players that bought it were either rich or very dedicated gamers, and FMV games just didn't offer the what was required to satisfy the hardcore.

"People often ask me, 'Was the Sega CD a mistake?' I don't believe it was a mistake at all," asserts Tom Kalinske. That might sound stubborn but the executive was thinking of Sega's long-term position. "I think we knew that with the high price, it wasn't going to be huge initially," says the former CEO. "The point of it more was that we had to learn how to do this – it was really a learning experience for all of us, as to what we were going to be able to do. If you look at what

> ❝ **We didn't bring enough new to the party. It wasn't as dramatically different as it needed to be** ❞
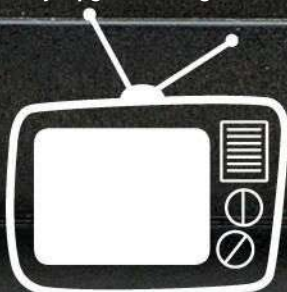>
> Tom Kalinske

» *Final Fight CD* is still a great conversion, but the benefit of CD is hard to convey in a screenshot.

POWER HOUSE

With three power supplies, two video connections and optional audio cables, the fully-upgraded Mega Drive was a complicated beast – here's what everything does

AV OUT

AV IN

POWER

A/V OUT   A/V IN   ADAPTOR

■ The 32X used the same nine-pin mini-DIN connector as the Mega Drive II, letting you to use the same AV cables to connect it. Its composite output is better than most Mega Drive models.
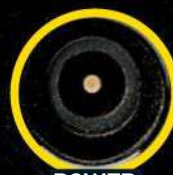
■ With three bulky plugs, the full Mega Drive combo was tricky to plug in – so much so that Sega released a power strip with widened spaces in the US to resolve the issue.

■ If you're using a Mega-CD with the original Mega Drive, it can't output stereo sound via the AV port. Instead, you need to connect a cable from the headphone socket to the mixing port.

■ The 32X hardware actually overlays two video signals rather than producing one whole picture, so it has to take an RGB signal from the Mega Drive before the 32X graphics can be added.

VOLUME

AV OUT

A/V OUT   ADAPTOR

POWER

■ Audiophiles could connect their speakers for high-quality sound – a key selling point, given that enhanced soundtracks were sometimes the only Mega-CD benefit.

POWER

STEREO MIXING

PHONO (LEFT)

PHONO (RIGHT)

AC ADAPTOR   MIXING   RIGHT   LEFT

MEGA MODEM 1990

■ This modem operated at 1.2 kilobits per second and allowed players to operate online banking services, download games and play multiplayer games. I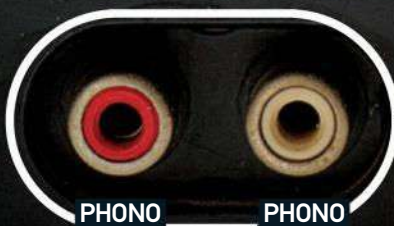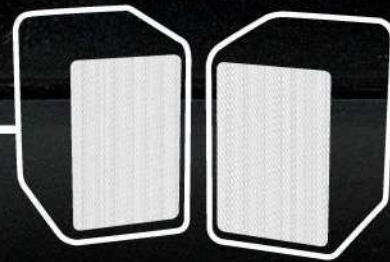t flopped quickly, resulting in scrapped international release plans and the removal of its expansion port from most Mega Drive models.

MULTIPLAYER
1993

■ Games like *Bomberman* really need more than two players, so Sega introduced this device to add extra control ports to the Mega Drive. A second version added support for EA's 4-Way Play protocol. The device proved reasonably popular, with the second model supported by almost 80 games.

EXTRA EXTENSIONS

Plenty more capabilities were added to the Mega Drive over its lifespan, with some meeting more success than others…

SIX BUTTON CONTROLLER
1993

■ Adding an extra four buttons to the standard Mega Drive pad allowed the system to produce pretty faithful versions of arcade hits like *Street Fighter II* and *Mortal Kombat*. The pad's low price and connection to popular games meant that it sold well and was widely supported.

POWER BASE CONVERTER
1989

■ Introduced a few months after the launch of the Japanese Mega Drive, this unit added backwards compatibility with Master System cartridges and cards. In regions where the Master System was popular, it sold well enough to receive a second Mega Drive II compatible model.

MEGA LD
1993

■ This software format was based on LaserDisc media, and could only be played on Pioneer's expensive LaserActive player with the Mega Drive extension module installed. Pioneer was the only publisher to support this format, pushing out more than 20 titles to its audience.

▶ happened afterwards, everybody went to discs. In a way, we probably should have been working on it even earlier, to gain the experience of how to do it correctly."

So the Mega-CD was a misstep, for sure – but that's only obvious with the benefit of hindsight. The same can't be said of its partner in crime, the 32X. Having been bitten by the failure to generate a significant market for the Mega-CD, you might have thought that Sega would be wary of going back to the add-on idea. However, having won its market share by touting superior technology, Sega was afraid of losing its edge. At the start of 1994, the company was working under the assumption that the Saturn wouldn't complete its global launch until late 1995 – a timescale which left almost two years for the likes of the Jaguar and 3DO to gain traction.

"There was a discussion between Sega Of America and Sega Japan, about how long the Genesis could last, and what we needed to do to prolong its lifespan," recalls Tom Kalinske. "Initially, the argument was that we could get another year of life out of the Genesis before we had to introduce the Saturn. Japan disagreed with me on that, so as kind of a stopgap measure, the 32X came up." What's more, the position was that it was needed before the end of 1994.

While it was initially conceived as a standalone platform, a meeting between Sega's engineering teams concluded with the idea that an add-on would be a better idea – it would leverage the existing Mega Drive customer base and reduce the cost of entry. To make it a logical progression for developers,

the machine used the same Hitachi SH2 processors as the Saturn, but with a lower clock speed and a different graphics set-up. The hardware provided decent polygon rendering capabilities and a greatly expanded colour palette, and could even be utilised by the Mega-CD.

The problem for Sega was getting it ready. "The other part of it was that we can't do this ourselves, we need support from Japan. There has to be a number of games that are developed in Japan for it as well as a number of games developed in the US – we know we can't launch a peripheral that only has a couple of games," explains Tom Kalinske. "That was where things sort of fell apart. There was the agreement to do that, but I think Japan was probably reluctant to do the number of software titles we wanted them to do."

By the time that development kits were available, barely any time was left for development, resulting in a permanent state of crunch time. "I think our start-to-end time on *Star Wars* was four months," says Steve ▶

DID YOU KNOW?

■ North American readers beware – the Genesis 3 is incompatible with both the Mega-CD and the 32X, so pick up an earlier model of the console.

> **People often ask me, 'Was the Sega CD a mistake?' I don't believe it was a mistake at all** Tom Kalinske

» *Silpheed* looked like a quantum leap, but the polygonal background was just pre-rendered FMV.

HYBRID HEAVEN

The all-in-one solutions that couldn't save the Mega Drive add-ons

Making a hybrid unit is something that can work to drive up an add-on's adoption rates, but this approach didn't seem to work for Sega. The first attempt to do so actually came from JVC in the form of the WonderMega, an all-in-one version of the Mega Drive and Mega-CD released in 1992. A revised model followed in 1993 and saw release in North America as the X'Eye in 1994. Of these, only the early models of the X'Eye is compatible with the 32X.

Sega's Multi-Mega (or Genesis CDX in North America) was also introduced in 1994 as a limited edition model aimed at high-end buyers. Like the WonderMega, it's a hybrid Mega Drive and Mega-CD, but it also functions as a portable CD player capable of running on batteries. Additionally, the Aiwa CSD-GM1 was a portable stereo with built-in Mega Drive and Mega-CD support – this model was released in Japan in 1994, and remains an expensive rarity. Both machines support the 32X, though are not ideally suited for it physically.

No official units ever combined the Mega Drive and 32X, despite the much-hyped announcement of the Neptune. While casing prototypes were made and eventually found their way into the hands of some lucky collectors, no functional prototypes were ever produced. However, enterprising modders have found it possible to squeeze the 32X's innards into a Mega Drive II case – though this requires major sacrifices, such as the removal of the Mega Drive II's original cartridge slot.

SAME NAME, DIFFERENT GAME

All too often, the Mega-CD suffered from barely-enhanced cartridge conversions. Here are five games that broke the mould…

MEGA DRIVE

MEGA-CD

THE TERMINATOR
■ The Mega Drive version of *The Terminator* is a decent if somewhat short and easy run-and-gun, but the Mega-CD game is a whole different kettle of fish. The whole thing has been redesigned from the ground up, with more stages, a higher difficulty level and an excellent soundtrack.

BATMAN RETURNS
■ The cartridge-based game was a somewhat disappointing platformer, and it's included in full on the Mega-CD disc. However, a full second game in the form of an excellent 3D combat racer has been included, and you can choose to play the driving stages, platform stages or both together.

JURASSIC PARK
■ If you play the Mega Drive version of *Jurassic Park*, you'll get a fairly standard 16-bit platformer. The Mega-CD game was a sedate point-and-click adventure that attempted to use the advanced platform to its fullest, featuring pre-rendered 3D scenery akin to that of *Myst*.

ETERNAL CHAMPIONS
■ While most of the original content makes its way across to the *Eternal Champions: Challenge From The Dark Side*, the upgrade features new characters, new stages, rebalanced gameplay and cinematic finishing moves. It's one of the few essential upgrades over a cartridge release.

SAMURAI SHODOWN
■ Oddly, the Mega Drive and Mega-CD received two different conversions of the same game, with Saurus handling the cartridge version for Takara and Funcom developing the CD version for JVC. Neither version can be considered definitive, though the Mega-CD version is generally preferred.
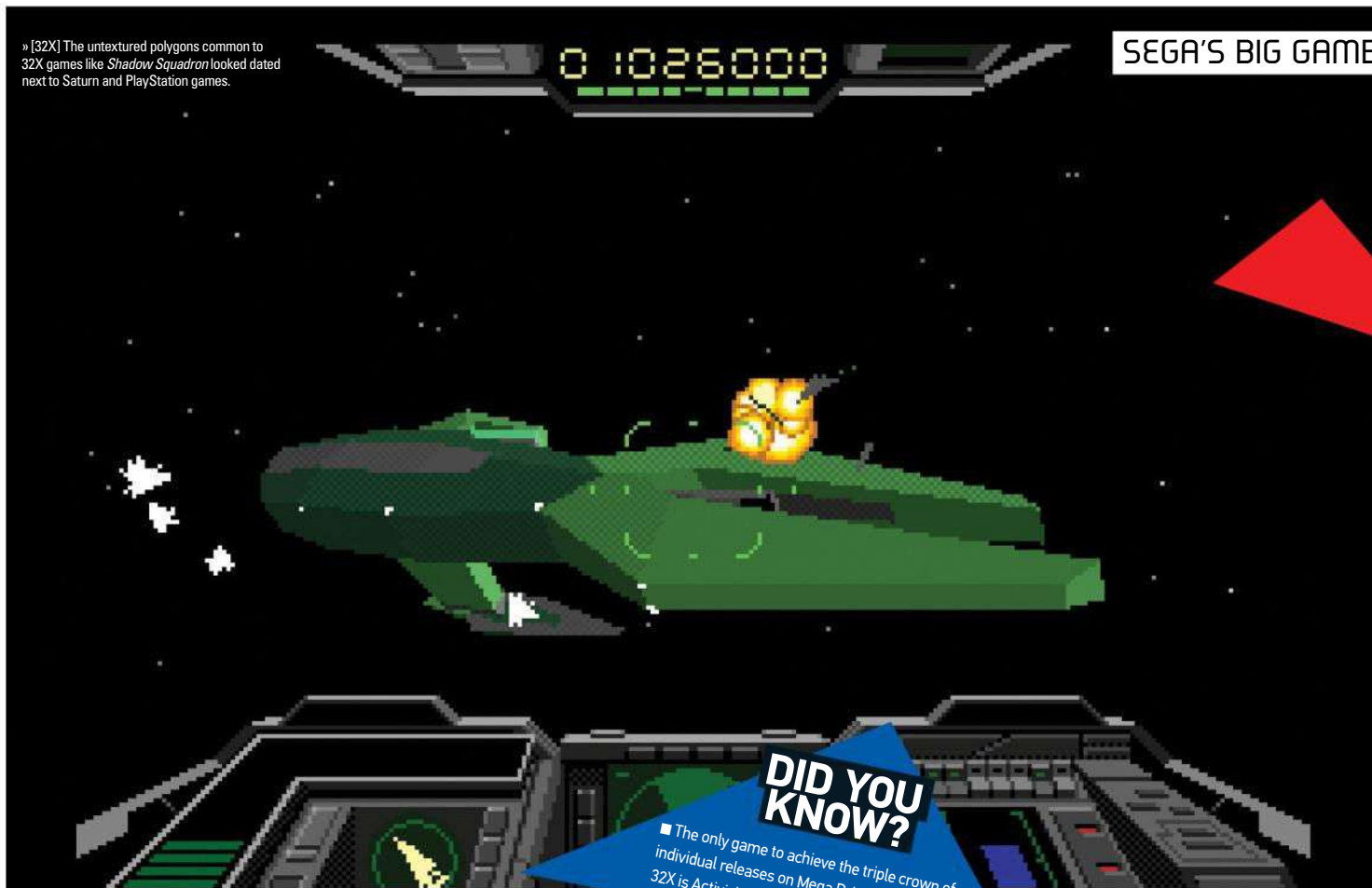
> **We worked seven days a week for four months straight, 12+ hour days were the norm** Steve Lashower

» [32X] The untextured polygons common to 32X games like *Shadow Squadron* looked dated next to Saturn and PlayStation games.

DID YOU KNOW?

■ The only game to achieve the triple crown of individual releases on Mega Drive, Mega-CD and 32X is Activision's *Pitfall: The Mayan Adventure*.

» [Mega-CD] Despite its poor reputation, the Mega-CD library contains some genuine classics such as *Sonic CD*.

▶ Lashower, a former Sega Of America programmer. "We worked seven days a week for four months straight, 12+ hour days were the norm. The company provided us with lodging nearby and brought us in lunch and dinner. I recall working until 7:00 AM, heading over to the hotel to shower, driving to school (I was still finishing up my degree), returning to the hotel to sleep for a bit, then back to Sega." Resources were stretched, too. "We had one prototype dev kit. That went to Chris Warner," Steve recalls. "He was tasked with writing the renderer based on what little documentation was translated into English at the time. I was able to code up the majority of the game flow and UI without having access to a 32X development system." Despite the pressure, *Star Wars* turned out to be a good conversion of the arcade game and a solid reason to buy a 32X.

The 32X didn't have the Mega-CD's problem – a single look at a 3D game like *Star Wars* or *Metal Head* was enough to show you what the add-on brought to the table. The problem was that Sega was simply competing with itself and causing consumer confusion in the process. In the months surrounding the launch of the 32X, magazines like *Mean Machines* Sega had letters pages filled with people asking whether they should get a 32X or wait for a Saturn. The advice was to buy a 32X because the Saturn wouldn't be out for ages, but this soon changed. "It all goes back to the decision to launch the Saturn early," Tom Kalinske says.

But if the arrival of a more powerful platform wasn't going to kill the platform, a lack of quality software certainly would. "After *Star Wars*, there was a huge push to get more 32X projects out the door," Steve explains. "Since we had experience with the console, quite a few projects were under development at Sega

Interactive. With the exception of the excellent *Ratchet And Bolt*, most were laughably bad." How bad could they possibly have been compared to games like *Cosmic Carnage*? "One title comes to mind: *X-treme Sports 32X* was a mix of concepts that were neither extreme nor sporty," Steve says. "Sega Interactive was doing crazy stuff: the sprites for *Jet Ski Football* were painstakingly rendered by 3D animators on a SGI mainframe. Not many people could tell, as they were at most only 16 pixels tall."

"I think Sega really backed itself into a corner with the 32X," says the former programmer. "Most recognised it as a scaled-down Saturn and held out for the new console instead." With the more powerful 32-bit system pushed out ahead of schedule, developers didn't want to work on the 32X and players were already looking past it. Losing the argument over whether the Mega Drive remained viable had caused the 32X to come into existence, and losing the argument over launching the Saturn early had doomed it to irrelevance.

"Obviously the 32X was a failure," says Tom Kalinske. "It was a failure because we didn't develop enough good games in the US and we didn't get enough support from Japan. I've had players tell me that the enjoyed *Doom* on 32X, they thought that was just terrific, and I say, 'Was it worth the price you had to pay?' And they said yeah, from their standpoint it was worth the price they had to pay, so I don't know. From a business standpoint, it certainly wasn't successful."

Ultimately, the Mega-CD and 32X did nothing to damage the Mega Drive itself, which was already an successful machine for its time. People could safely buy into the platform at the time, knowing that there was already a huge software library out there and plenty of support to come. In later years, few enough people had experience with the add-ons to tarnish the Mega

Drive's robust legacy – it's rare that you'll find anybody who judges the machine by its add-ons.

But what the add-ons did do was damage faith in Sega, and the publicity surrounding them made it harder to buy into any of the company's new platforms. Introducing one failed add-on would have been an experiment gone awry, and Sega could have brushed off the Mega-CD – it had its supporters. Pushing two add-ons was wrong, but still not fatal. What soured consumers on the add-ons was a failure to support them. This came back to bite the company during later years – when Tom Kalinske's successor Bernie Stolar declared that, "The Saturn is not our future," at E3 1997, over two years before the Dreamcast would launch in the territory, people saw Sega as having abandoned a young platform for the third time in a row. It wasn't unreasonable to conclude that the same would happen to the Dreamcast, and that's what people did.

Ultimately, Sega's tale of woe would prove to be a cautionary story for the industry at large – don't gamble your successes away just because you're scared that someone else at the table has nicer cards. ✱

TAKING BACK THE STREETS

The History of Streets Of Rage

When Sega decided to take on Capcom's seminal Final Fight, it created a trilogy of the most playable and memorable examples of the genre. Damien McFerran bares his knuckles and explores the history of the Streets Of Rage series

In this modern era of first-person shooters and ultra-realistic racing simulations, it's hard to believe that, at the start of the Nineties, the humble side-scrolling brawler was the object of many a gamer's affections. The public's penchant for gritty urban brawlers was kick-started by 1987's *Double Dragon,* and would continue well into the next decade thanks to coin-ops like Sega's *Golden Axe,* Capcom's *Final Fight* and Konami's *Teenage Mutant Ninja Turtles.* Outside one-on-one scrappers like *Street Fighter II,* ports of intense 2D side-scrolling fighters were arguably the most eagerly awaited of all arcade conversions.

In fact, the early battles between the Sega Mega Drive and Nintendo's SNES were typified by the genre. *Golden Axe* was one of Sega's key launch titles, and when Nintendo managed to secure a seemingly exclusive hold on Capcom's aforementioned *Final Fight* for the debut of the SNES, the exasperated sighs of Mega Drive owners worldwide were positively deafening. Despite the fact that the port was missing the two-player mode, one of the playable characters and an entire level, it was nonetheless a massive coup for Nintendo's new 16-bit powerhouse – a fact that wasn't lost on the executives at Sega of Japan. Although it can't be said with any degree of certainty that *Streets Of Rage* was Sega's direct response to the SNES *Final Fight* conversion, it's hard to imagine that the company's decision to create a thematically similar
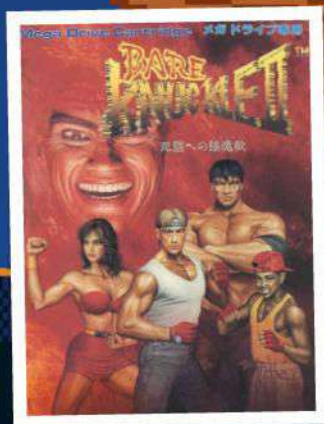
» Although the games have always been of a high standard, the same cannot be said for the appalling box art that Sega continually used.

game wasn't somehow linked to Nintendo and Capcom's deal.

Like so many Mega Drive owners at the time, *Streets Of Rage* expert James Newton's first impression of the game was one of shock and awe. "I remember being blown away by the animation," reveals James, who now works as a journalist, reporting on the industry. "To my young eyes it was like having an arcade-quality beat-'em-up in the home, and a real watershed moment for me." It was clear that, with this game, Sega was making a bold statement: that its machine could handle simultaneous two-player, three playable characters, and a wide and varied selection of levels. "The removal of multiplayer from the Super NES version of *Final Fight* really hurt that game, so Sega's title having a full two-player mode was quite a selling point," elaborates James. "Two-player co-operative play was a big feature and playing all the way through the game with a friend even opens up an alternative ending. There's also the opportunity to call in police backup when things get really hairy, with mortar fire acting like a smart bomb to take out the bad guys."

The robust action provided by the game was enticing, and was ably supported by a remarkable soundtrack composed by Yuzo Koshiro – who was also responsible for *Revenge Of Shinobi*'s standout score. "It was unlike anything you'd heard from a Mega Drive in the past," comments James when asked to explain the appeal of the music. "There are elements of dance, reggae, techno and more in there, all composed with a surprising amount of heart and emotion. The arrangements are intricate and really make the Mega Drive's sound chip sing, and each fits the stage's atmosphere so well you can't hear a tune without thinking back to the accompanying level." Indeed, Koshiro succeeded in overcoming one of the console's biggest limitations: its relatively

» Sega's 8-bit ports were as faithful as you could possibly expect, but corners were cut.

» It always amazed us that the police artillery is able to destroy enemies yet leave our heroes unscathed.

primitive sound hardware. Compared to the SNES, the Mega Drive traditionally struggled to cook up truly epic aural accompaniment, but *Streets Of Rage* proved beyond all doubt that it could be done.

Streets Of Rage was a massive hit with Mega Drive owners, and a sequel of some description was almost inevitable. With *Streets Of Rage 2*, Sega completely overhauled the gameplay and graphics to create what many people deem to be the format's finest hour.

"The most noticeable upgrade was the huge increase in character sprite size," says James. "Looking back at the original *Streets Of Rage* now, the sprites seem a bit measly, but the sequel really beefed up the characters while keeping the same speed and animation quality. It also introduced a two-player head-to-head mode – no doubt inspired by the success of *Street Fighter II* – and the superb co-operative mode was retained and improved upon, with four characters to choose from. Each fighter also benefited from new animations and unique special moves." *Streets Of Rage 2* managed to better its predecessor in practically every department. "It took everything great about the first one and tightened it all up," continues James. "As Sega's first 16-megabit cartridge, it had plenty of room for great graphics and sound, and Sega really pulled out all the stops to deliver. It's hardly revolutionary in gameplay terms, but it achieves everything it sets out to do, all wrapped up in some of the best presentation seen on a 16-bit console."

It's worth noting that around this time Sega was fighting fierce hardware wars on multiple fronts. The 8-bit Master System was still incredibly popular in Europe, and the firm's Game Gear was waging a portable conflict against Nintendo's incumbent Game Boy handheld. To support these two formats, Sega downscaled several key Mega Drive franchises, with the original *Streets Of Rage* being one such release.

"The Master System port sadly lacks the two-player mode but includes an exclusive boss, which

POLICE SQUAD

Axel Stone
A determined martial artist with a love of videogames and white T-shirts, Axel is the solid all-rounder of the bunch and arguably the franchise's main protagonist. His 'Grand Upper' special move is useful for pushing back resilient enemies.

Blaze Fielding
Alongside Axel, Blaze is a playable character in all three *Streets Of Rage* titles. She's fast, but her speed comes at the expense of strength. Not one to fear the cold, she's particularly fond of short skirts that expose her knickers.

Adam Hunter
Only playable in the first game, Adam is a boxer with a long reach but slow speed. He is central to the plot of the second game because he manages to get himself kidnapped, forcing his kid brother Skate to become involved.

Eddie 'Skate' Hunter
The younger brother of Adam Hunter appears in the second and third games as a playable character and is called 'Sammy' in the Japanese version. One of his attacks involves leaping onto the head of the enemy and punching them repeatedly.

Max Thunder
As a professional wrestler and accomplice of Axel, Max is clearly intended to be *Streets Of Rage*'s answer to *Final Fight*'s brawler-turned-mayor Mike Haggar. He's slow but powerful, showcasing devastating grapple moves and disarmingly tight spandex.

Dr Zan
A boffin with robotic limbs, Dr Zan is quite slow, but his extendable arms allow him to lash out from a distance. He's able to run electric currents down these appendages, which makes him kind of like a deadly version of Mr Tickle from the *Mr Men*.

TAKING BACK THE STREETS

wasn't seen in other modes," explains James. "The Game Gear version was cut down to six stages but did include two-player mode via a system link cable. They're admirable and surprisingly faithful attempts at replicating the game under 8-bit constraints, but neither can hold a candle to the 16-bit originals." *Streets Of Rage 2* was also converted to these two systems, with similarly workmanlike results.

Back on the Mega Drive, the action continued unabated. After much hype, 1994 saw the emergence of *Streets Of Rage 3*, a title that boasted 24 megabits of memory and even more bone-crunching gameplay.

"There was a new character and new moves, including special weapon-based attacks – Axel gets a 'Shoryuken'-style sword attack, for example – and a greater emphasis on plot, with cut-scenes keeping you up to speed on what's going on, which is just as well, because the storyline's a little off-the-wall," explains James. "Graphically it was another huge boost, coming on a 24-megabit cartridge that also meant the levels could be longer, with several possible endings thrown into the mix as well."

Ultimately, though, it would be a title that divided the critics of the time. "I think that *Streets Of Rage 3* was a departure from the previous game but perhaps not in the right ways," admits James. "A cybernetic scientist and boxing kangaroo were so out of keeping with the game's seedy atmosphere that it surprises me Sega went with them. *Streets Of Rage 2* improved on the original in so many ways that Sega was never going to make the same quantum leap again, and that's the third game's biggest problem: had this been released instead of *2*, everyone would have said it was amazing, but Sega set the bar so high that it was always going to be tough to improve."

Another criticism that reviewers of the era had was the perceived downturn in the quality of the music on offer: "The first two games had such incredible music that Koshiro was going to struggle to top it, but the soundtrack was composed in a very innovative and different way: Koshiro and collaborator Motohiro Kawashima used an experimental 'automatic note generator'. The resultant techno style was probably ahead of its time and wasn't to everyone's tastes. Although the soundtrack lacks the standout tunes that typify Koshiro's other output, it's still worthy of reassessment."

This is a sentiment that can be applied to the entire game. With hindsight, it's easier to see just how brilliant the third title is: not only does it feature a significantly deeper combat system, but it also

» All that remains of the Dreamcast *Streets Of Rage 4* are a few short prototype videos.

MEMORABLE BOSSES

Ultimate Warrior
(Streets Of Rage)
With that rippling physique, unique facepaint and abysmal hairstyle, there's no mistaking the inspiration for this character – it's clear that Sega's designers were big fans of the WWF's Ultimate Warrior. Unsurprisingly, this foe favours grapple attacks, so try to keep him at a distance.

Ash (Bare Knuckle 3)
Exclusive to the Japanese version of the third title, this rather effeminate chap prances around the screen in stockings and suspenders, looking every inch like a beefed-up stereotypical member of the Village People. Unsurprisingly, he was removed from the Western version – although his sprite can be accessed using a cheat code.

Mr X
The evil leader of the shadowy Syndicate, which is holding the city to ransom with its reign of terror, this formally attired antagonist appears in all three *Streets Of Rage* titles. Never one to play by the rules, Mr X is rarely seen without his deadly standard-issue machine gun.

Yamato (Streets Of Rage 3)
A spooky samurai clad in blood-red armour, this spectral dude uses ninja magic to create two clones of himself, which must be defeated before you can have a pop at the real deal. The key is to keep moving and watch for his leaping katana attacks.

Robot Y
(Streets Of Rage 3)
By the time you reach the end of *Streets Of Rage 3*, it becomes apparent that Mr X has gone a bit loopy and encased his brain in a jar. He controls Robot Y (Neo-X in the Japanese version), a deadly cybernetic warrior with rocket boosters and astonishing speed.

» The 3D version of *Streets Of Rage 2* is loaded with neat extras, including a hilarious new set of credits.

COMIC VIOLENCE

Fleetway's popular *Sonic The Comic* publication. Because they were created after the release of *Streets Of Rage 2*, the comics feature Skate and Max, with Skate's brother Adam, who was a playable character in the first game, being notably absent. Like all good graphic novels, the *Streets Of Rage* adaptation has its moments of crazy hilarity – at one point it is revealed that there's more than one Mr X, with the first one having been unfortunately killed in a swimming accident. You can view the entire series at **www.defaced.co.uk/geekenvy**.

" In its infinite wisdom, Sega of America passed on Streets Of Rage 4 "

has bolder and better visuals. Interestingly, there are some significant disparities between the Japanese and Western editions, as James explains: "The biggest difference was the huge increase in difficulty: the Western version's normal mode is even harder than Japan's most difficult level, which was rare in those days, as it is today. Sega also made a few content decisions in some delicate areas, changing female costumes to less revealing outfits and removing gay stereotype boss Ash altogether. The plot was completely changed too: the Japanese story involves missing military generals, explosive substances and the White House, whereas Westerners played through a story of robot clones trying to take control of the city."

It wasn't until the launch of the 32-bit Sega Saturn that the *Streets Of Rage* rumour mill started to churn once more; not long after the console hit the shelves, word began to spread that UK-based Core Design had been commissioned to produce an all-new *Streets Of Rage* title. Sadly, the road to release was rocky, and the eventual product didn't bear the legendary name, as James explains: "It was originally conceived as the series' first 3D outing, but disputes between Sega Europe and Core Design about bringing the game to rival formats – including the PlayStation and N64 – meant Sega understandably revoked the licence. Sega then pledged to publish the game under the moniker *Fighting Force* after original publisher Eidos dropped the Saturn version, but that fell through as

well – probably a good thing considering the mediocre reviews it received on other machines."

The Saturn came and went without a visit from the *Streets Of Rage* crew, and by the time the Dreamcast hit the market, many had consigned the entire genre to the scrap heap. However, behind the scenes, efforts to resuscitate the series were being made.

"A Dreamcast *Streets Of Rage 4* was in development by the original team, who developed a prototype to demonstrate to Sega of America for approval, with Yuzo Koshiro on board too," reveals James. "However, the executives at Sega of America passed on the concept, and development was stopped in its tracks."

Video footage of the game in action has since been leaked onto the internet, and it shows a promising 3D fighter with an interesting optional first-person viewpoint that was quite unusual for the time. Although true-blooded Sega fans still become animated when they think of a true sequel to Sega's most famous side-scroller, the moment has arguably passed. With recent reboot failures such as *Final Fight: Streetwise* and *Golden Axe: Beast Rider*, one has to wonder if Sega – or any company, for that matter – will attempt to revisit this classic genre again.

"*Streets Of Rage* is one of those series you never want to see ruined," says James. "What initially seems like a very simple gameplay premise – walk right, beat up bad guys, repeat – is actually a huge amount of fun, but it could just as easily become a repetitive bore with a few dodgy decisions. Sure, it would be nice to get a Capcom-style HD remix of the 16-bit series, but considering the original games are available on almost every platform known to man, it wouldn't make much sense. I suspect Sega will abandon *Streets Of Rage* the way it has so many of its beloved franchises – and perhaps it's best that way."

James has a point, but the *Streets Of Rage* franchise isn't dead yet. While no new games are on the horizon, two excellent ports of *Streets Of Rage 1* and *2* are now available on 3DS. Both feature great use of 3D and come loaded with great new features, like "Fists Of Death" which is a one-hit kill mode. The soundtracks for both games are also available on vinyl from **data-discs.com** making them essential purchases for fans of the game. Sega may have no current interest in returning to the classic franchise, but it's clear that it hasn't been forgotten.

» The failure of other side-scrolling reboots may mean that we truly have seen the end of *Streets Of Rage*.

THE END
PRODUCED BY SEGA™

Kula – 42059   Mandy – 11999
Mandy   K'

RAGING BEATS

STREETS OF RAGE may be famous for its addictive gameplay, but it's also well-remembered thanks to its pumping soundtrack. Rumour has it that composer Yuzo Koshiro was so enamoured with the Mega Drive's Yamaha YM2612 sound chip that he had one installed in his studio, which might go some way to explaining why he was able to extract such impressive results from the otherwise underwhelming hardware. Koshiro's work on the *Streets Of Rage* series was so well-received that it was released on CD in Japan, and is now a collector's item. He would also add his musical embellishments to Enix's *ActRaiser* and eventually founded his own studio, Ancient. The company produced the brilliant *Beyond Oasis* (aka *Story Of Thor*) for the Mega Drive, and its most recent release is *Protect Me Knight* for Xbox Live Arcade.

QUACKSHOT STARRING DONALD DUCK

DONALD, OR JUST NATHAN DRAKE IN A DUCK COSTUME?
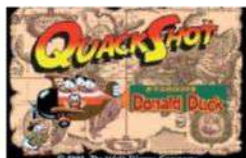
» **PUBLISHER:** SEGA
» **RELEASED:** 1991
» **GENRE:** PLATFORMER
» **FEATURED HARDWARE:** MEGA DRIVE
» **EXPECT TO PAY:** A FEW QUID

HISTORY

You have to feel for Donald Duck. Not only does he play second fiddle to a big-eared mouse with a girl's voice, but Disney didn't even give him a pair of underpants. Shameless. Well, thanks to Sega of Japan – for brokering a deal with Disney to develop a se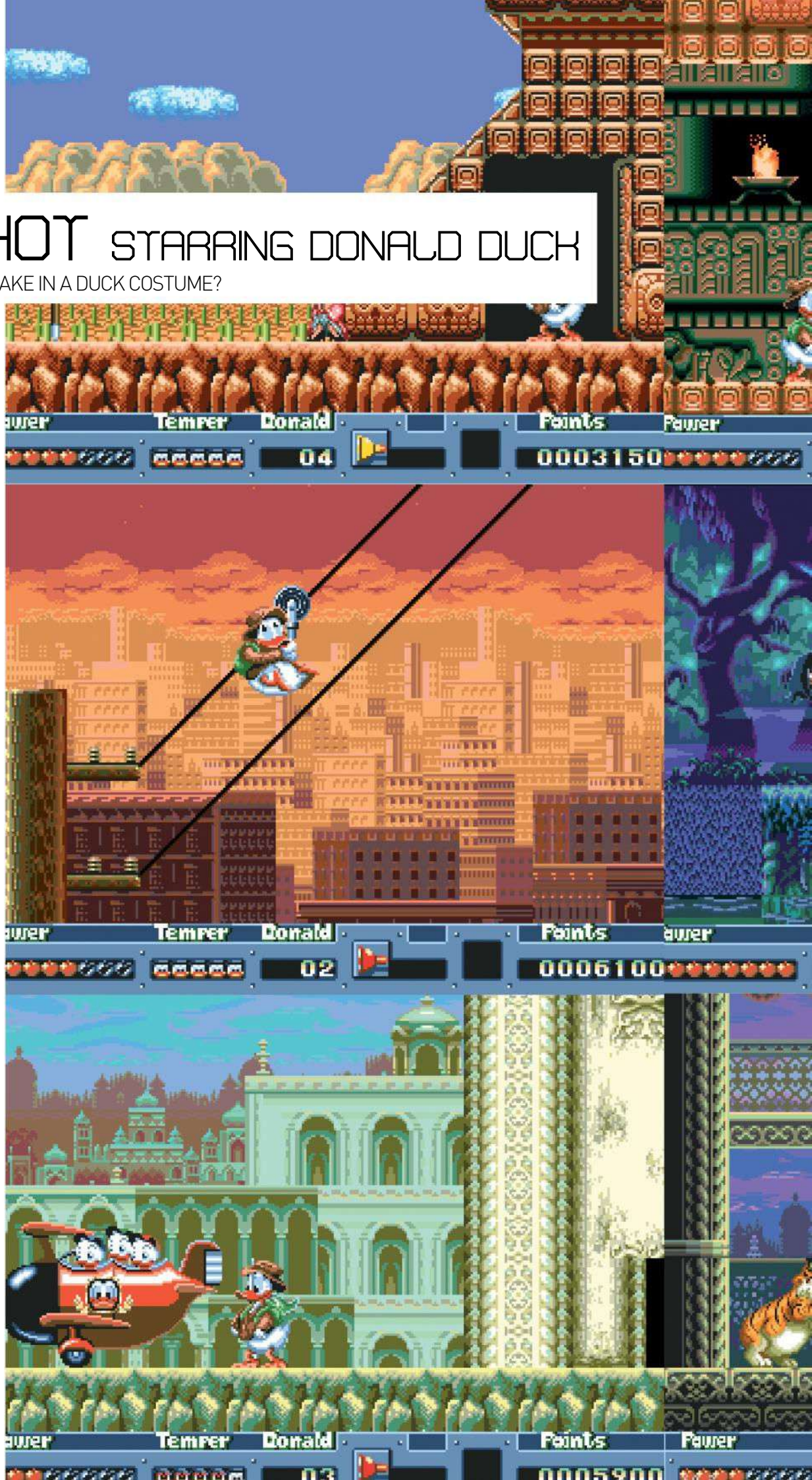ries of Mega Drive games starring its creations – Donald finally got his moment to shine when he was plucked to star in his own platform game; one that, in my opinion, was actually better than *Castle Of Illusion*.

After discovering a treasure map charting the whereabouts of the lost riches of King Garuzia, Donald and his nephews set off on an *Indiana Jones*-style adventure to find the treasure, make their fortunes and invest it all into a giant mouse trap. Donald's expedition takes him to the arid deserts of Mexico, the darkest reaches of Transylvania, and almost everywhere in between, and every level is wonderfully detailed, brimming with colour and a joy to negotiate.

One of the elements that makes *Quackshot* so endearing is its gameplay, a clever fusion of judicious platform action and soft adventuring. Summoning a handy airlift from his young nephews, Donald is able to travel to any level on the game map (when they're all opened up). However, certain areas of each level can only be accessed if Donald possesses a particular item, ranging from a key or a handy weapon upgrade (such as plungers that stick to walls and can take a duck's weight).

Donald is blessed with an impressive array of moves and weapons, including a brick-destroying bubble-gun and a handy sliding dash move to get him out of tight scrapes and through tight gaps. Also, in a neat homage to the character's famous short fuse, the game features a temper bar which can be filled up by collecting chilli peppers, to turn Donald into a devastating ball of fury.

While it might be short, *Quackshot* holds plenty of charm, wit and enjoyable platform action. And it's also one of the few times in history that Donald actually succeeded in getting one up on his rival Mickey Mouse.

Temper	Donald			Points
🔴🔴🔴🔴🔴	04			0003150C

Power	Temper	Donald			Points
❤❤❤❤	🔴🔴🔴🔴🔴	03			000510
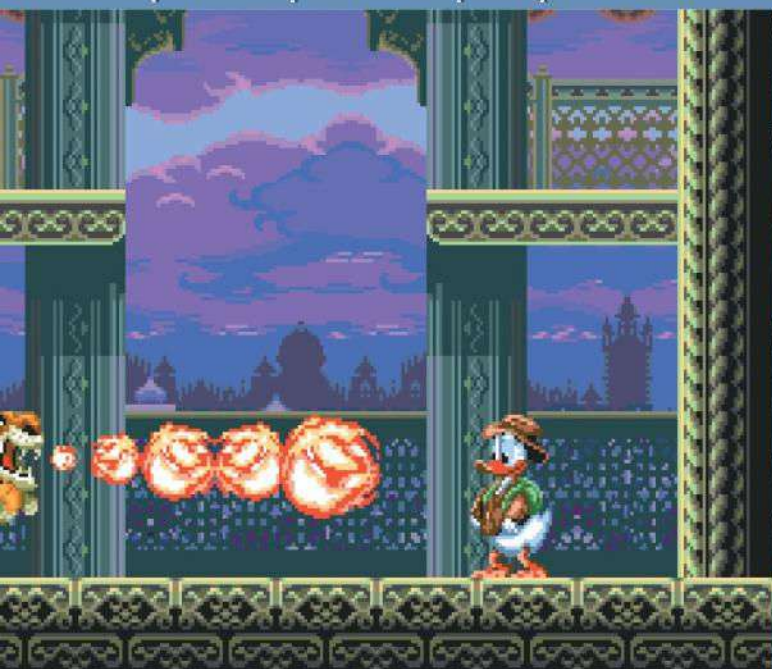
Temper	Donald			Points
🔴🔴🔴🔴🔴	01			0009150

Power	Temper	Donald			Points
❤	🔴🔴🔴🔴🔴	03			000180

Temper	Donald			Points
	02			0004900C

Power	Temper	Donald			Points
❤❤❤❤❤	🔴🔴🔴🔴🔴	03			000900

GOLDEN AXE

Inspired by the antics of an oiled-up Arnold Schwarzenegger, Sega's Golden Axe was one of the first scrolling beat-'em-ups with a Western-style fantasy setting. Mike Bevan goes behind the scenes with creator Makoto Uchida

IN THE KNOW

» **PUBLISHER:** SEGA

» **DEVELOPER:** SEGA

» **RELEASED:** 1989

» **PLATFORM:** ARCADE, VARIOUS

» **GENRE:** SCROLLING BEAT-'EM-UP

Here's a fun question for all you retro-heads… which came first, *Final Fight* or *Golden Axe*? Both made their appearance in arcades in 1989, but it might surprise some to find that *Golden Axe* appeared a few months before Capcom's brawler, in the summer of that year. And while *Final Fight* was a more influential and arguably more polished title, and the template for the myriad of clones that followed it, Sega's fighting fantasy perhaps had the more visually engaging theme. With its axe-wielding warriors, scantily-clad Amazonians and dragon-riding adversaries, *Golden Axe* evoked the stylings of Hollywood B-movie cult classics like *The Beastmaster* and *Conan The Barbarian*. Its fiery, magic attacks that cut through baddies like a coin-op apocalypse were a novelty the likes of which had never been seen, and its background design, with turtle-back villages and scraps on the back of giant eagles, felt fresh and, let's face it, looked extremely cool. After all, Mayor Mike Haggar never got the thrill of jumping on the back of a chicken-leg monster and bashing a couple of sword-wielding skeletons to death (again) with its tail.

Golden Axe was the second Sega arcade game project from Makota Uchida, following his mythology-inspired brawler *Altered Beast*. "When we reached the final stages of the development of *Altered Beast*, our boss asked our team to come up with a new game," he recalls. "The given proposition was an action game that ran on [*Altered Beast*'s] System 16 arcade board, with similar gameplay to Technos' *Double Dragon*, which was a popular arcade game at the time. My idea was to come up with a *Double Dragon* that was not a *Double Dragon*… Technos was an experienced rival who had been working on the *Kunio-Kun* series, so there was no way we could compete if we did the same thing as them. I had a feeling that arcade games should be competitive against the great hit console title *Dragon Quest* (created by Enix) and therefore studied the world of magic and swords, combined this with the gameplay of

Double Dragon, and finally came up with the concept of *Golden Axe.*"

What emerged was a East-meets-West vision of high fantasy, sprinkled with a little of the spirit of Enix's role-playing game, along with liberal helpings of pulp and classic American and European influences. This offered a welcome and refreshing change to the murky ghetto-like stylings of *Renegade* and *Double Dragon.* "My father loved action movies and I used to watch them with him," Uchida tells us. "During the development of *Golden Axe*, I rented a video of *Conan* and watched until the tape was worn… Of course I was also inspired by *Lord Of The Rings*. I bought many illustration works based on Middle-Earth and used them as reference materials. If I could, I would vote Gandalf for president!"

Although the game's plot is hardly Tolkien, it's a reasonably entertaining premise in a cheesy midnight-matinee kind of way. In

CHOOSE YOUR WARRIOR…

The three key heroes of Golden Axe. Who was your favourite?

AX BATTLER

■ The lead hero of *Golden Axe* is oddly-named seeing as he sports a big sword rather than a hatchet. Ax is probably the most well-rounded character, with decent melee-abilities and effective explosive magic.

GILIUS THUNDERHEAD

■ Although intended as another support character, dwarven warrior Gilius is one of the most popular of the trio to play due to the large reach of his enormous axe. He can also summon lightning magic on his foes.

TYRIS FLARE

■ Tyris is supposedly the weakest of the three characters from a melee standpoint, although in practice she's pretty nifty with her rapier. A mistress of fire magic, her spells are the most damaging in the game.

KNOW YOUR ENEMIES

ALEX
■ They've already lost parents and siblings to Death Adder, but losing their friend Alex is the final straw for our three heroes, who head off to avenge him as soon as he dies.
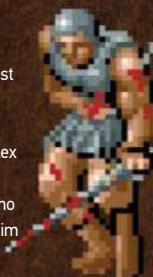
BAD BROTHERS
■ These two bald giant brothers are the first bosses you encounter and are more than happy to crush you with their huge hammers. Nasty.

HENINGER
■ All scrolling fighters need throwaway cannon fodder and Heninger fulfils his purpose admirably. Fortunately he's quite easy to beat.

LONGMOAN
■ Another fodder character who is surprisingly easy to beat. Watch out for his sneaky shoulder charge and bring him down quickly.
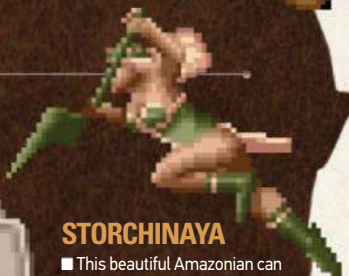
BITTER KNIGHT
■ This huge boss has a deadly dangerous reach and can easily take you down with a single swipe of his sword or shield.

STORCHINAYA
■ This beautiful Amazonian can put up a tough fight and dishes out a surprising amount of damage. Is often encountered on a bizarrian to begin with, but can easily be dismounted.

SKELETON
■ Clearly inspired by the work of Ray Harryhausen this skeletal foes are absolute buggers to defeat and have a wide range of extremely dangerous attacks.

DEATH ADDER
■ This is it, this is Death Adder and he's as deadly as his name suggests. In addition to wielding the Golden Axe of the title, he's always surrounded by skeleton minions and has some devastating magic. Your best bet it to wedge him against the side of the screen and wail on him.

STAGE 1

» We're informed that some of the digitised screams in the game are from *Rambo: First Blood*.

GOLDEN MOMENT

ALEX

#2 THEY KILLED ALEX…
■ Were not sure if Makoto Uchida has something against Sega mascot Alex Kidd, but *Altered Beast* features gravestones bearing his name and in *Golden Axe* the first person to die is called Alex. Perhaps it's just a coincidence...

the fantastical realm of Yuria, a fiendishly intimidating villain named Death Adder has captured the King and his daughter, and has imprisoned them in their castle. He's also got his evil mitts on the Golden Axe, the magical emblem of Yuria, and threatens to destroy the royal family and their precious heirloom unless the populace accept him as their divine leader. So begins the quest of three mysterious warriors, each with a score to settle with the Dark One, who set out on a quest to free Yuria and seek their revenge.

From the start, Uchida's team opted to mirror *Double Dragon* in providing support for two simultaneous players, with a choice from three suitably buff characters – a lead male barbarian, Ax Battler, a female Amazon, Tyris Flame, and a dwarf, Gilius Thunderhead, possessor of the game's most aggravating-looking weapon. "I thought that the balance of having one hero and two support members was best," comments Uchida. "We differentiated the support characters by changing

their abilities. One who is superior in using magic (Tyris), and the other who is not so good with magic, but strong in melee combat (Gilius)." Given that there were three playable characters though, did Uchida's team think about adding three-player support at all? "We did consider that plan, but we gave up due to the hardware specs," he replies. "The maximum number of characters, including the enemies that we could display and operate at once was six. But by the time we created the next title, *Revenge Of Death Adder*, the hardware specs had allowed us to make the game playable for up to four players simultaneously."

As a genre scrolling beat-'em-ups are by nature fairly simplistic and repetitive, something that still applies to modern titles like *Castle Crashers*. But Uchida's team made an effort to vary the standard attacks from slashing blades and throws to bashing baddies on the head with the hilt of the hero's sword, complete with a satisfying clunking sound. Double-tapping

» A rampaging chicken-leg monster about to take out Ax's kneecaps.

» Ax and Gilius arrived at Turtle Village just in time for a barbecue.

BOX BATTLES

Sega's classic brawler had a range of interesting looking covers…
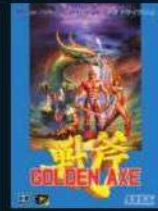
GENESIS
■ Why does Ax Battler look like Conan? Why is he holding an axe? Why do we care so much? Very poor.

8-BIT/16-BIT
■ Yes it's heavily inspired by *Conan*, but at least it ties in with the actual game and is fairly authentic. A much better effort.

MEGA DRIVE
■ It's clearly been inspired by *Master Of The Universe*, but it doesn't stop it from being awesome.

PC ENGINE CD-ROM
■ A straightforward representation of *Golden Axe*'s title screen doesn't prepare you for the horrors on the disc.

PS2
■ This is easily the best part of Sega's shocking update. Special points for the giant eagle too.

MASTER SYSTEM
■ A very authentic representation of the barebones content found inside.

> " **DURING THE DEVELOPMENT OF GOLDEN AXE, I RENTED A VIDEO OF CONAN AND WATCHED UNTIL THE TAPE WAS WORN** " Makoto Uchida

the joystick allowed for a shoulder charge or flying kick, while attacking in mid-air pulled off a powerful diving weapon smash that was tricky to time right but highly damaging if it caught an enemy off-guard. One of the game's most notable signature moves was the backward spin attack, when pressing both attack and jump buttons together whirled your hero around 180 degrees to hack at an enemy behind you. This was particularly useful when enemies surrounded you.

While *Golden Axe* was one of the games that pioneered the concept of the weapon-based brawler, this added a few other design restrictions, as Uchida explains. "The general gameplay for action games is to carefully observe the distance [from] your enemy and to attack in the correct timing. It is very similar to hitting a ball with a baseball bat. The reason those games were generally side-view was because a silhouette of a human is most recognisable when seen from the side, and you could draw the human large enough to invoke emotional involvement. Now, if we want the character to permanently hold a weapon in a side-view game while maintaining the size of the character, the character will have an enormous reach and will become too strong. It will become too difficult to adjust the game balance, so

you would have to draw the character smaller if you want him or her to walk freely with a weapon, and this was another difficulty. For those reasons, most of the games in the genre were fought with bare hands. It was the same with Sega games [including *Altered Beast*]. But, we decided to give weapons to the characters to make the game different from *Double Dragon*. We adjusted the swing so the characters could not attack too far. We had to draw the playable character small, but instead we made the boss enemies and magic [effects] huge…"

And they were certainly impressive, from Ax's mini mushroom-clouds and Gilius's lightning-bolts to Tyris's ultimate magic attack, a screen-high fire-breathing dragon. Each of the three characters had to collect magic potions to power-up their spell bars by whacking little gnome creatures, either in the main game or a humorous intermission around a campfire. Working out the best time to use spells, either casting lowly, less damaging attacks on smaller minions, or saving up all your potions to unleash a massive firestorm on bosses, added a degree of strategy to the gratuitous hacking and slashing. "I happened

GOLDEN MOMENT

#3 LAUGHING GIANTS
■ The first pair of bosses in the game are these hammer-wielding giants, who spend a fair bit of time standing and laughing to themselves at your efforts to dispatch their henchmen. Never mind, they won't be giggling in a minute.

DEVELOPER HIGHLIGHTS

ALTERED BEAST (PICTURED)
SYSTEM: ARCADE
YEAR: 1988

ALIEN STORM
SYSTEM: ARCADE
YEAR: 1990

GOLDEN AXE: THE REVENGE OF DEATH ADDER
SYSTEM: ARCADE
YEAR: 1992

GOLDEN MOMENT

#4 TURTLE VILLAGE
■ As one of the game's intermission screens is keen to point out, the first village our heroes reach is situated on the back of a giant turtle, complete with greenery growing out of its shell. We're not exactly sure why they built it there though.

to have knowledge of element-based magic, so I simply applied it," says Uchida rather enigmatically. "Although we did not select water, because water would be a healing magic, rather than an attacking magic."

Another memorable feature of the game was the addition of rideable beasts. One creature that makes an appearance in *Golden Axe* – the so-called chicken-leg monster or cockatrice – had first cropped up as a monster in *Altered Beast*. In *Golden Axe* it makes its entrance as the steed of a clan of ferocious Amazon women. Later, ▶

STAGE 1

» Gilius calls on the God of Thunder while Ax takes a nap.

» [Arcade] These guys again?

» [Arcade] Girl power before the Spice Girls.

» [Arcade] Ax unleashes a mini-apocalypse on a pink knight.

GOLDEN MOMENT

#6 BURN, BABY, BURN

■ The spells of *Golden Axe* provide some of its most memorable moments, with the lion's share being given to Tyris Flare and her pyrotechnic box of tricks, including phantoms, lava eruptions and the fire-spewing dragon.

▶ players encounter two types of dragon which, after demounting their riders with a swift blow to the head, can be ridden into battle spewing flame or blasting fire bolts at the bad guys. "This idea came from an art asset painted by a senior artist," adds Uchida. "A character was riding on a monster using a saddle. I saw it, and thought we could use this in the game…"

Speaking of fantastic beasts, we ask Uchida why the team decided against following *Altered Beast*'s lead of implementing monster or creature guardians, rather than the knights and giants that make up the main bosses of *Golden Axe*. "We had to give up some small details, but basically everything is in the game," he explains. "I'm surprised you noticed this. This was intended. As part of *Golden Axe*'s concept, we decided to design the enemies as close to human. We wanted to stick to the gameplay of 'human versus human'. If there is no unity in gameplay, it will be difficult for the user to learn and advance the play skill."

An amusing final surprise is left to the last reel of the game. After Death Adder is vanquished and the credits roll, the game goes all *Blazing Saddles* on us and the cast of *Golden Axe* burst out of their arcade cabinet and go running through the streets of an Eighties metropolis, Benny Hill-style. "Just like my other titles, like *Altered Beast* and *Alien Storm*, I like joyful endings," Uchida tells us. "In *Golden Axe* the characters pop out of the game, this is because I wanted this to happen. When you were a child, I bet you wanted the characters from TV programmes and videogames to come out of the screen, right?"

Uchida also offers us a potted history of how the game ended up being christened *Golden Axe*. "The name of the game changed three times," he reveals. "Originally, it was called 'Battle Axe'. The development team members liked it, but we gave it up for licence reasons. The next name was 'Broad Axe'. This was an English word that we thought would match the original Japanese title. There were no licence issues, and so the development moved on. But, right before the end of the development, the president of Sega US saw Gilius's axe, which was a bit yellow-ish. He thought that colour was gold and he said 'Golden Axe' is the title of the game. We didn't like the name because it had no relations with the Japanese, but we were threatened that he would not sell the game if the title name was not 'Golden Axe' and so we changed the title name. Death Adder's axe was coloured gold, instead of the original silver and we also changed the plot to match the name. I now think it was good that we had changed the name and I appreciate his advice."

With the arcade game proving a big draw for fans of hack-and-slash fantasy it seems the team was well rewarded after its year-long development project. Like *Altered Beast*, Sega selected *Golden Axe* to be ported to its Mega Drive/Genesis console. The result was, save a few shortened areas, an authentic conversion that added an extra level to the end of the game, and new a final boss called Death Bringer. However it turned out he was really just another version of Death Adder in disguise… "I was an advisor providing advice to the development team," Uchida tells us. "The basic game is the same as the arcade version, and I think the conversion was really good. If I could say something, the Death Bringer could have been better and I wanted to give him a better name; I wanted him to appear in a more dramatic way and I wanted to change how he looks, not just the colour. He is the final boss, and so he should be most impressive." Sega also released a Mega CD port, with improved animation but solo-play only, and a butchered version of the game for the Master System, with Ax Battler as the only playable character. Virgin Interactive was granted the licence to produce ports for the Amiga, Atari ST, C64, Amstrad CPC and Spectrum, which were coded by Probe Software, while Japanese developer Telnet produced the disappointing PC Engine CD version.

GOLDEN MOMENT

» [Arcade] We're surprised Gilius can even lift that massive axe.

» [Arcade] Tyris rustles up a fire spell while Gilius does a bit of dwarf skeleton tossing.

#5 GNOME-WACKING

■ These little gnome fellas show up sometimes during the game, and can be bashed for extra potions or pick-ups. Then there are these camp-fire intermissions where the sneaky beggars try to steal your swag.

> " WE DECIDED TO GIVE WEAPONS TO THE CHARACTERS TO MAKE THE GAME DIFFERENT FROM DOUBLE DRAGON "
>
> Makoto Uchida

» [Arcade] Death Adder about to rise from his grave.

» [Arcade] None shall pass!

GOLDEN MOMENT

#7
BEAST RIDERS

■ Alongside the magic effects, one of *Golden Axe*'s signature features is the ability to steal the steeds of adversaries and turn them against them, from the lowly chicken-leg monster to this extremely nasty fireball-spitting beastie.

The popularity of the rather more accomplished Mega Drive cartridge release led to a couple of exclusive sequels on that console, although Uchida wasn't involved in either of them. But he did return with his 'true' arcade sequel, *Golden Axe: The Revenge Of Death Adder*, which included four new playable characters and even more spectacular, and sometimes gruesomely over-the-top magic effects. Bigger and more involving than its prequel, many fans would consider this entry as the high point of the series. More recently the franchise suffered from lacklustre sequels like *Golden Axe: The Duel* and the critically

panned *Golden Axe: Beast Rider*, released on PS3 and Xbox 360 in 2008. But of all the *Golden Axe* titles, the original incarnation was the game that made the biggest splash in its day and remains most fondly remembered, with versions still selling on a range of modern consoles and portable devices. We ask Uchida why he thinks his famous fantasy brawler has endured so well in the public imagination as it approaches its 25th anniversary. "Probably because it was one of the earliest action games that was based on the fantasy world of swords and magic," he muses. "The visual effects of the magic [spells] were pretty neat for a title back then, and probably people remembered it with the surprise of seeing new stuff." And we can't argue, thinking back to when we first saw that enormous dragon head hove into view and roast the occupants of the arcade cabinet to charcoal while Tyris strutted her stuff in a medieval bikini. That was something you didn't see every day back then. ✱
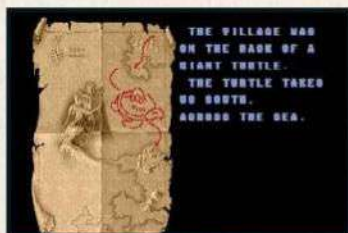
» [Arcade] XThe post-level intermission screen – your handy guide to the realm of Yuria.

GOLDEN AXE: THE SEQUELS

GOLDEN AXE II (1991)

■ This Mega Drive exclusive doesn't differ much from the original, with our three heroes returning to defeat a new archenemy called Dark Guld. The move set has been tweaked, for instance Tyris now has a back-flip attack, and the magic effects are a little weaker looking, but some of the music, from *NiGHTS Into Dreams* composer Naofumi Hataya, is most impressive.

GOLDEN AXE WARRIOR (1991)

■ Released for the Master System, perhaps to make up for its woeful conversion of the arcade game, this was actually an action-RPG, and a rather shameless clone of Nintendo's *Zelda*. Tasking players with finding nine magic crystals hidden by Death Adder in the oddly-named kingdom of Firewood, it was a fun quest, and one of the last releases for Sega's 8-bit console.

AX BATTLER: A LEGEND OF GOLDEN AXE (1991)

■ Sega's Game Gear also got its own *Golden Axe* spin-off that respectfully ripped off another *Zelda* title, *Link's Adventure*. It's an action-RPG with a top-down overworld for exploring, which switches to the more familiar side-view of Ax when he's, ahem, battling.

GOLDEN AXE: THE REVENGE OF DEATH ADDER (1992)

■ The only other *Golden Axe* title involving Makoto Uchida, this arcade sequel ran on Sega's powerful System 32 board. Featuring four new characters, including a female centaur and a giant, it's definitely one of the top Nineties scrolling beat-'em-ups.

GOLDEN AXE III (1993)

■ This Japan-only Mega Drive sequel may have been influenced by *Revenge Of Death Adder*, with its larger characters and multiple routes. There are some nice set pieces like a fight on a wagon, and another decent Hataya soundtrack, but it feels more like *Streets Of Rage* than *Golden Axe*. Not that that's a bad thing.

GOLDEN AXE: THE DUEL (1994)

■ The third and final *Golden Axe* arcade title departed from the scrolling beat-'em-up formula, instead taking the form of a *Street Fighter II*-style one-on-one fighting game. Utilising Sega's STV board, based on its Saturn console hardware, the main draw of the game was getting the chance to play as Death Adder himself.

GOLDEN AXE: BEAST RIDER (2008)

■ A bloody re-imagining of the franchise, *Beast Rider* is a 3D hack-and-slash with little in common with its predecessors, save for the appearance of an unrecognisable Tyris Flare as its beast-riding heroine. Riding giant beasts is enjoyable, but combat is awkward, as is the finicky camera system.

#8
HYDRA'S TEETH?
■ In a nod to Ray Harryhausen, our heroes encounter an army of skeletons on the back of a giant eagle. Given arcade technology, we'd have to say they are not as well animated as the ones in *Jason And The Argonauts...*
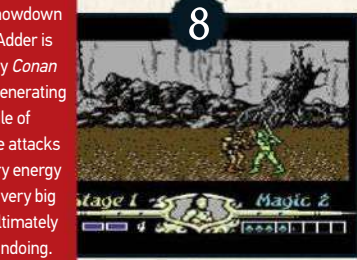
#9
MEET DEATH ADDER
■ The final showdown with Death Adder is worthy of any *Conan* film. After regenerating from a pile of carcasses, he attacks you with scary energy blasts and a very big axe, which ultimately proves his undoing.

MASTERING THE AXE
The best and worst conversions of Sega's classic brawler

Sega's own Mega Drive **(1)** port is extremely close to the original game, featuring slightly smaller sprites and weaker audio. Approved by Uchida himself, it adds extras including 'Duel' and 'Beginner' modes and a brand new level featuring Death Bringer, Death Adder's purple-skinned boss. It's arguably the best early version available. By comparison, the Master System **(2)** effort is atrocious. Tyris Flare and

Gillius are missing (although their magic remains) the graphics and animation are terrible, while the multiplayer is absent.

The Mega CD **(3)** also misses the multiplayer mode, but does include better animation and great Red Book audio. The GBA outing **(4)** on the *Sega Smash Pack* is very poor. The playing area feels cramped, the collision detection is appalling, and it has atrocious audio and missing music. The *Dreamcast*

Smash Pack port is another disappointing Mega Drive conversion with similarly poor audio. The Mega Drive outing continued to form the basis for many later compilation console ports, including the PC, PS2, PSP, PS3 and Xbox 360. It's also the basis for Lavastorm's reasonable Tapwave Zodiac port and the iOS **(5)** version, which is an otherwise authentic release hampered by fiddly controls. A far better handheld effort

is on the WonderSwan Color **(6)**. It features improved visuals, new combat animations and a decent soundtrack, a much better alternative to Tiger's bland LCD effort. The worst console effort is Telenet's PC Engine CD **(7)** port, which suffers from terrible animation, clunky controls, naff remixed tunes and laughable animated cut-scenes.

The 8-bit home computer ports are all by Probe and quite mixed. The C64 **(8)**

> **"DEATH ADDER'S AXE WAS GOLD AND WE ALSO CHANGED THE PLOT TO MATCH THE NAME "**
>
> Makoto Uchida

GOLDEN MOMENT

#10 BLAZING DRAGONS

■ On beating *Golden Axe*, players are greeted with one of the funniest end-credit sequences ever to grace a coin-op, as the various villains you've fought burst out of the cabinet and run out of the arcade with our heroes in hot pursuit.

offers incredible music, muddy visuals, poor controls, no multiplayer and there's only ever one enemy on-screen. The Amstrad and Spectrum versions fare better. The Spectrum **(9)** iteration is very decent, with far better hit detection and the all-important two-player mode. The graphics look weedy and garish, but it remains solid. The Amstrad **(10)** one is even better with far more detailed visuals and the same two-player mode.

Things were far better on the 16-bit formats, with Probe once again on coding duties. The Amiga **(11)** version is brilliant with visuals that are arguably better than the Mega Drive game. The animation and scrolling is super slick, while the tunes sound a lot punchier than Sega's effort. It misses out on the control front, but this is otherwise very, very good and virtually identical to the Atari ST outing. Interestingly, the PC **(12)**

port seems to be based on the Mega Drive game, as it features the same 'Beginning' and 'Duel' modes, and the Death Bringer colour palette, but not the final level. Sadly, it has terribly jerky scrolling and poor audio.

The best current version can be found on the Xbox 360 **(13)** and PlayStation 3, they're both very accurate arcade ports and also feature online play. The Arcade version and Mega Drive outings are also

available on the Wii's Virtual Console, but without online support. *Golden Axe* can even be found on mobiles, but it suffers from cramped controls and weedy looking visuals. Perhaps the biggest atrocity though was Sega's attempt to remake the game for PS2 **(14)**. It should have been an incredibly accurate arcade port but was a botched 3D reimagining with laughable visuals and excruciatingly painful gameplay.

SEGA SATURN

22 years ago, Sega had conquered Earth and was looking to expand its empire across the galaxy, but poor decisions and an unexpected invader called Sony foiled its plans. Nick Thorpe looks back at how the Saturn failed to run rings around its competition – and why it can still stand proud alongside them

Sega's Saturn is an odd machine. It's a console which was launched by a market leader but quickly outgunned by a competitor with greater resources, and one which brought its manufacturer long-desired domestic success but caused the collapse of its international empire. The Saturn was a console ill-equipped to compete in the marketplace of the mid-Nineties, but the qualities that ensured that are the very same qualities which have caused it to age splendidly. To find out how the machine ended up as such an oddity, we'll need to go back to the beginning.

As early as 1993, Sega was looking towards replacing its incredibly popular but ageing Mega Drive hardware – it wasn't in any rush to abandon the platform, but as a forward-thinking console manufacturer the company was aware that the machine couldn't last forever. As had been the case with previous Sega hardware, the new machine was being designed in Japan by Hideki Sato's engineering team. However, times had changed – when the Mega Drive had been designed, Sega of America was a tiny entity and Sega Europe didn't exist. However, Sega's success in the 16-bit console war had seen both branches experience rapid growth, and they had their own ideas what the next machine would look like.

While Sato's team was busy putting together its own design, a variety of ▶

» The AV out port handles S-Video, RGB Scart, Composite and RF.
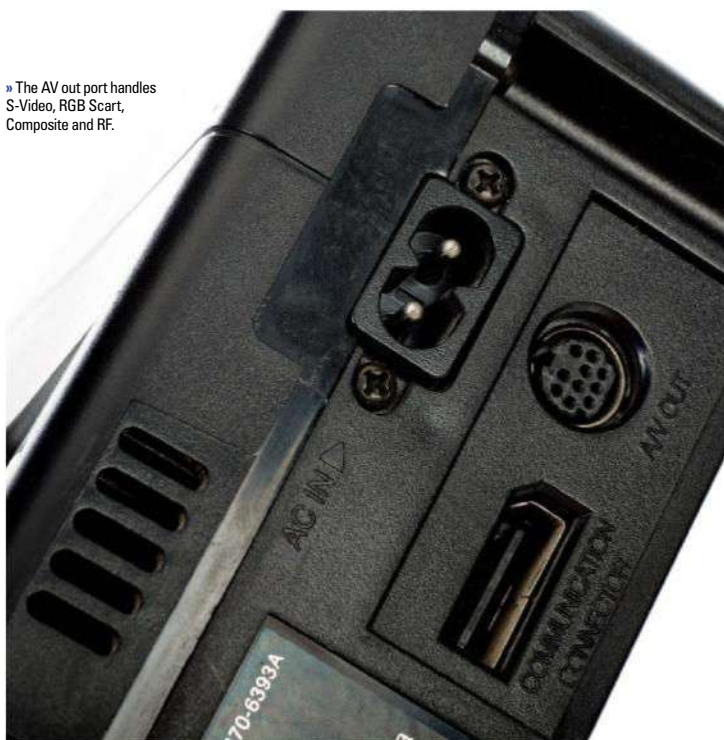
suitors were approaching Sega hoping to make their own console designs a reality. Trip Hawkins offered Sega the opportunity to get on board with the 3DO. Sega of America proposed a partnership with Sony, in which hardware rights were shared and software rights were split. Silicon Graphics Inc, most famous for providing hardware to Hollywood special effects teams, approached Sega with a promising chipset a little later. Sega's response in all three cases was to reject the outside designs and rely on its own people, for reasons explained by former Sega of America CEO Tom Kalinske in our interview box out.

Sato's team eventually produced a design which was both complex and costly. The Saturn employed two Hitachi SH2 processors for processing and two custom VDP chips for graphics, along with a dedicated Motorola 68EC000 processor to drive the Saturn Custom Sound Processor chip. The hardware design ensured that the Saturn was a major advance over the 16-bit consoles, as former Iguana coder Steve Snake explains: "It was pretty similar to work with, just much better. It had a lot more RAM, speed, sound and graphics capabilities. The limitations you had to work around with previous consoles were mostly non-existent."

However, the Saturn's standing as compared to its competitors is a point of contention, even now. While it definitely had strengths – most notably some incredibly good sound hardware – it's often accused of being underpowered and difficult to work with, contributing to the long waits Saturn owners faced when waiting for PlayStation conversions.

It's an assessment that *WipEout* designer Nick Burcombe concurs with. "Technically, it was of course inferior to PlayStation, although as I recall, nowhere near as bad as the PlayStation fans and press were making out." *Alien Trilogy* developer David Shea, whose PlayStation version arrived five months before the Saturn game hit shelves, elaborates: "The Saturn was difficult to write for compared with the PlayStation. It used quads rather than triangles, which made for messy 3D maths, and the PlayStation came with (at the time) an awesome development kit and software libraries. You could look more impressive faster on the PlayStation, without being an assembler head."

However, not every developer was so unimpressed with the machine, as Steve offers a contrary point of view: "I heard a lot of people complain that it didn't come with any software libraries, and it was too complicated. I never understood that. The previous consoles didn't have any libraries

STAY IN CONTROL

Initially, the rest of the world received a different Saturn controller to Japan. See how they stack up…

JAPANESE PAD

SHOULDER BUTTONS
■ Satisfyingly clicky, with a pronounced ridge to distinguish them from the body.

FACE BUTTONS
■ Similarly sized to the Western pad, but with softer edges and a better feel.

D-PAD
■ A similar design to the Mega Drive's D-pad, but with the hard edges of the cross rounded off.

BODY
■ More elegant curves make for a nicer-looking pad than the Western design.

WESTERN PAD

SHOULDER BUTTONS
■ Shallow and spongy, these offer poor tactile response when pressed.

D-PAD
■ The concave centre leaves you hunting for the odd circular ridges to sense direction.

FACE BUTTONS
■ The plastic feels cheap, though the pronounced edges feel good under the thumb.

BODY
■ Angular and awkward, with a more pronounced curve than the Japanese pad.

» *Daytona USA*'s roughness exemplifies the Saturn's teething problems, but it delivered on gameplay.

» With RAM expansion cartridges the Saturn's 2D arcade ports outperformed their PlayStation equivalents.

either – programming straight to the metal is what we were all used to, and it allowed you to get the most from the machine. Even systems like the Amiga that did have libraries – most games didn't even use them at all! As for 'too complicated' – sure, it was packed with a lot of hardware – but you didn't have to use it all if you didn't need it. It was good to know it was there when you did, and none of it, taken on its own, was hard to work with."

It seems that working well with the Saturn was a matter of catering for the machine's idiosyncracies – approaches which worked on other systems would fail if not tailored to the Saturn's unique hardware. "When I started the project, I had to do a demo for id Software to approve," says Jim Bagley, who worked on the Saturn version of *Doom*. "I started by extracting all the levels and audio and textures from the WAD files, and made my own Saturn version of this, then got an early version of the renderer working using the 3D hardware. The demo got sent off, and a couple of days later I got a call from John Carmack, who stipulated that under no circumstances could I use the 3D hardware to draw the screen, I had to use the processors like the PC. Thankfully I enjoy challenges, so it turned out to be a really enjoyable project, using both SH2s

to render the display like the PC did it, using the 68000 to orchestrate them both." Carmack's stipulation might have made for an interesting coding challenge, but Jim concedes that it "kneecapped" the Saturn game, which suffered from a poor frame rate and general slow speed.

Early titles demonstrated some of the struggles that developers faced. The Saturn hit Japanese shelves on 22 November 1994, with five titles initially available. Four of them were of little consequence: traditional board game *Mahjong Goku Tenjiki*, FMV murder mystery *WanChai Connection*, ball-rolling puzzler *Tama* and a port of *Myst*. The big hitter, which sold at an almost 1:1 rate with the console, was Sega's conversion of its hit arcade game *Virtua Fighter*. Despite the presence of some graphical imperfections in the form of polygon drop-out, import reviews were incredibly enthusiastic, with *Edge* going so far as to call it the "the first true 'next generation' console game." Sega press releases of the time claim that half a million Saturns were sold within a month of the Japanese launch, giving the system a great start to build from.

However, the PlayStation arrived less than two weeks after the Saturn, alongside a stunning conversion of Namco's *Ridge Racer*. "I remember seeing *Ridge Racer* running on a prototype PSone and being blown away," recalls David. "I don't ever ▶

» The internal battery is used to set the time and store saves. If it dies, you lose your precious saves.

SPEC OPS

The Saturn and its main competitors go head-to-head

	PLAYSTATION	SATURN	NINTENDO 64
STORAGE	CD-ROM (up to 650MB)	CD-ROM (up to 650MB)	Cartridge (up to 64MB)
CPU	32-bit MIPS R3000A-compatible RISC (33.87 MHz)	Twin 32-bit Hitachi SH2 (28.6 MHz each)	64-bit MIPS R4300i (93.75 MHz)
RAM	2MB main RAM 1MB video RAM 512KB audio RAM	2MB main RAM 2x 512KB video RAM 512KB audio RAM	4MB shared RAM
3D GRAPHICS PERFORMANCE	180,000 polygons per second with texture mapping and gouraud shading	200,000 polygons per second with texture mapping	150,000 polygons per second with all effects enabled (including perspective-corrected texture mapping, shading, anti-aliasing and texture filtering)
SCREEN RESOLUTION	Minimum 256 x 224 Maximum 640 x 480	Minimum 320 x 224 Maximum 704 x 480	Minimum 256 x 224 Maximum 640 x 480
SOUND	CD audio; SPU supporting 24-channel ADPCM playback	CD audio; Saturn Custom Sound Processor supporting 32-channel PCM playback and FM synthesis	Shared Reality Signal Processor supporting up to 100-channel PCM playback (16-24 typical); supports other sound formats with software codecs

» Here's an interesting fact. The reset button on Samsung's Korean model doesn't actually work!

a Saturn, your head is in Uranus." But the biggest blow came when Steve Race, a former Sega employee, made an incredibly short speech about the PlayStation's price. "$299," he uttered, before walking straight back off the stage.

The surprise American launch caused a number of problems. Sega managed to alienate key suppliers such as KB Toys, as only four large retail chains were selected. Additionally, third parties weren't given adequate time to prepare software for the machine, leaving just six Sega-published games available at launch. Early adopters were further starved of software, as only two more games were scheduled to launch before the original September date. The European launch, brought forward to July 1995, was similarly under-promoted and barren. As 1995 drew to a close, Sega was already having to fight back against the PlayStation, which had received an impressive launch.

Thankfully, Sega's teams had managed to get to grips with the Saturn and had readied a trio of key arcade conversions for the Christmas season. *Virtua Cop* was an addictive lightgun shooter with an excellent scoring system. *Virtua Fighter 2* could lay claim to being the world's best fighting game and though it wasn't arcade perfect, the conversion was a beautiful piece of software, running at 60 frames per second in the Saturn's high resolution mode. *Sega Rally Championship* was a similarly potent shot back at accusations of 3D inadequacy, as well as being one of the best arcade racing games ever made. All three had a commercial impact, particularly *Sega Rally* which became the fastest-selling CD-ROM software ever released in the UK, but when all was said and done the PlayStation was still ahead.

But as the Saturn started to fall behind in the wider world, it was thriving in its

homeland of Japan. It was a curious divide – what was the difference in approach? In part, it's simply because some of Sega's big games mattered more in Japan. In the UK, *Virtua Fighter 2* was lauded by the likes of *Mean Machines Sega* and *C&VG* and sold well for a Saturn game. In Japan, it was a million-selling phenomenon. To give you a rough idea of how much the series means to Japanese gamers, consider this: in a 2006 poll to determine the top 100 games of all time, Famitsu readers ranked *Virtua Fighter* higher than the likes of *Sonic The Hedgehog*, *Super Mario World* and *Tetris*.

That alone is insufficient to explain the Saturn's Japanese success. However, it becomes much easier to understand when you consider that by the end of 1995, Sega had the likes of Atlus making exclusive RPGs such as *Shin Megami Tensei: Devil Summoner* for the Saturn – a
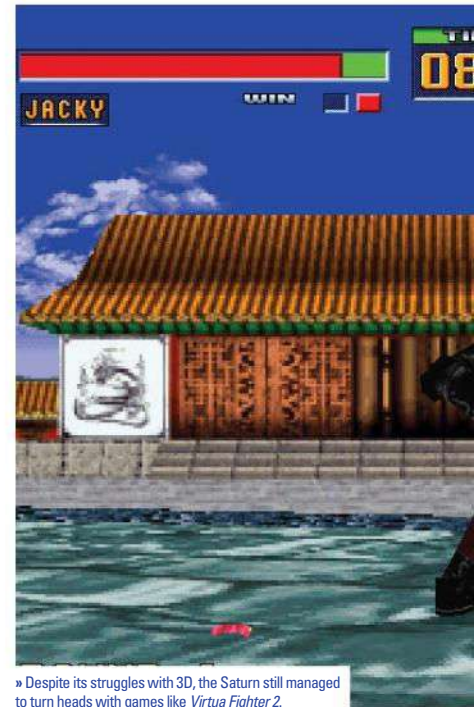
» Despite its struggles with 3D, the Saturn still managed to turn heads with games like *Virtua Fighter 2*.

▶ remember that same feeling from the Saturn at all." In part, this was because the Saturn's titles suffered in early comparisons. When *Daytona USA* hit the Saturn, it played well but showed the teething issues that teams were having – it suffered from a low frame rate, major polygon pop-up issues and letterboxed presentation, none of which affected the PlayStation title. *Battle Arena Toshinden*, a PlayStation fighting game, offered a texture-mapped look which set it apart from *Virtua Fighter*. As a result, the Saturn gained an early reputation for being bad at producing 3D visuals.

The system's standing wasn't helped by a disastrous international launch. Knowing that Sony would provide formidable competition, Sega's president Hayao Nakayama wanted to get an advantage with early adopters by bringing the Saturn's launch date forward from the announced September 1995 date. Despite resistance from both American and European branches of the company, Nakayama would get his way. Tom Kalinske's keynote speech at the very first E3 show on 11 May 1995 included expected details such as the Saturn's features and its price – a rather steep $399 – but also included the unexpected announcement that the console was on sale that very day. Sony spent the show intent on taking the wind out of Sega's sails – both literally, when staff deflated Sega's prominent inflatable Sonic, and figuratively, by printing leaflets with messages including "If you buy

SEGA'S NEXT TOP MODEL

The Saturn has a surprisingly high number of hardware variants…

HI-SATURN NAVI
■ Hitachi's other Saturn model included additional GPS navigation features, as well as a portable monitor for in-car use.

SEGA SATURN (JAPAN)
■ Here's the standard Japanese model of Saturn, as available from launch – a big slab of grey plastic with blue buttons.

SEGA SATURN (WHITE)
■ A cheaper model of the Saturn with a small casing redesign, available in Japan. A black version of the same case was introduced in the West.

SEGA SATURN (EXPORT)
■ The Saturn was given a makeover for its international debut, sporting a new all-black look and a redesigned control pad.

SKELETON SATURN
■ Another Japanese Saturn with a transparent case, this was a tie in with *Derby Stallion* and lacks the This Is Cool branding.

» Games like *Burning Rangers* proved that the Saturn was more than capable of impressive 3D.

"I got a call from John Carmack, who said that under no circumstances could I use the 3D hardware"

Jim Bagley

massive boon, as the genre is enormously popular in Japan. This allowed Sega to build its customer base and a steady stream of classic RPGs made their way to the system over the years, including the likes of *Grandia*, *Princess Crown* and the *Langrisser* series. Special mention must be made of the *Sakura Taisen* series, a strategy RPG with dating sim elements which became a hugely popular franchise, spawning spin-off media and even a Tokyo cafe. All of the games mentioned above were exclusive to the Saturn for at least a year if not permanently, cementing the system as a good buy for RPG fans.

Going into 1996, it became clear that the Saturn was losing further ground outside of Japan. Sega had needed to slash prices in order to compete with the PlayStation, though it wasn't outwardly admitting that fact. "Up yours, we won't panic, you're the ones who are frightened, you're the ones running away and we're going to kick your arses while you're running," was Sega's European marketing director Andy Mee's response to one Sony price cut. The reality couldn't be more different. For all of Sega's bravado, there were three times as many PlayStations as Saturns in European homes in October 1996 and the gap didn't look like closing, especially after the console's planned Christmas blockbuster *Sonic X-Treme* was cancelled due to development issues.

Worse yet, the Saturn had gained more competition in June 1996. The long-awaited Nintendo 64 hit the ground running with the groundbreaking 3D platformer *Super Mario 64*, considered to be a strong contender for best game ever. While the machine would never achieve tremendous levels of success in the Saturn's stronghold of Japan, it quickly surpassed the Saturn in the West and drew attention away from Sega's system. However, something funny started to happen that year – having realised that their machine was falling out of favour with publishers and the media, Saturn fans began to club together and look beyond the mainstream.

Websites such as Dave's Sega Saturn ▶

HI-SATURN

■ A black Japanese Saturn with white buttons, manufactured under licence from Sega by electronics giant and Saturn CPU supplier Hitachi.

V-SATURN

■ Saturn CD-ROM drive supplier Victor (better known as JVC) manufactured this grey Japanese Saturn with colourful buttons.

SAMSUNG SATURN

■ Manufactured by Samsung to get around South Korean trade laws, this Saturn model is known for having a faulty reset button.

SEGA SATURN (SONIC STAMP)

■ Despite Sonic being underutilised during the Saturn years, Sega still saw fit to stamp his silhouette on this.

THIS IS COOL SATURN

■ A Saturn with an awesome see-through case, produced in limited numbers for the Japanese market. Now an expensive collector's item.

X8 Iamges © Sega Retro

THE THIRD DIMENSION
While the Saturn's strengths didn't lie in 3D graphics, some games pushed the limits hard…

NIGHTS INTO DREAMS
SONIC TEAM

■ The high points in *NiGHTS* are some of the most impressive sights you'll see on the Saturn, from the underwater section of Splash Garden to the warping world of Soft Museum. We have a major fondness for the climactic battle with Wizeman, which stands out by showcasing some rarely-used effects.

SONIC R
TRAVELLER'S TALES

■ *Sonic R* boasts racetracks that could easily form the basis of proper Sonic platforming stages, thanks to their multiple shortcuts and extra routes. Everything is suitably colourful and environments look top-notch, especially as a clever fade-in effect masks the game's low draw distance – a common problem on the Saturn.

BURNING RANGERS
SONIC TEAM

■ Sonic Team's final Saturn release wrings about as much out of the machine as possible – real transparencies, huge environments and lighting effects are all on show. However, the Saturn is noticeably creaking under the strain of everything being asked of it, perhaps showing that its limits had been reached.

DEAD OR ALIVE
TECMO

■ Tecmo's fighter brings a high resolution display and silky frame rate to the ring. It's a close call between this and *Virtua Fighter 2*, but *Dead Or Alive*'s backgrounds seem to work as intended more often than those in Sega's game, better compensating for the loss of the arcade version's 3D backdrops.

PANZER DRAGOON SAGA
TEAM ANDROMEDA

■ One of the more expensive Saturn games also happens to be one of its prettiest, which is no surprise as its predecessors were also great in their day. Environments look incredible in *Panzer Dragoon Saga*, but battles steal the show with dynamic camera work adding to the sense of action.

» This cartridge slot is used not for games, but to add additional RAM, or devices like the Action Replay.

▶ Page (www.sega-saturn.com) and the infamous UK:Resistance (www.ukresistance.co.uk) became important community hubs for Saturn owners, providing news and reviews for the system while maintaining a close 'insider's club' feel. This fan support persisted as there was a whole lot of great software available – Sega continued to release conversions of excellent arcade games such as *Virtual On* and *Fighting Vipers*, as well as amazing console exclusives like *NiGHTS Into Dreams* and *Panzer Dragoon Zwei*. Some third parties began to get to grips with the machine too, as shown by releases like Lobotomy Software's *Exhumed*, Treasure's *Guardian Heroes* and Capcom's 2D fighting games. The Saturn might have been struggling to attract new owners, but it was doing a great job of entertaining its existing audience.

The Saturn entered a period of commercial decline in the West during 1997, in part because the non-Japanese branches of Sega had conceded defeat and were already looking to the future – and that meant new hardware. "We won't catch Sony up, there's no doubt about that," Andy Mee stated in the first issue of *Saturn Power*, mere months before being made redundant as Sega sought to cut costs. Sega of America CEO Bernie Stolar was even more explicit when he said "the Saturn is not our future" during a keynote speech at E3. It wasn't an untrue statement, but spoken in June 1997 it was a premature one as Sega wouldn't have a new console ready for almost a year and a half. The result of the speech was that Western retailers, publishers and press alike had sufficient reason to abandon the Saturn – and they began doing just that.

In Japan, the Saturn was in the middle of its busiest year yet. 351 titles were released for the console in 1997, substantially more than either of the other markets ever received during the Saturn's entire lifetime. This thriving market didn't just benefit gamers in Japan – the same hardcore gamers that sought their own coverage online were looking beyond the mainstream for games too, and found that the import scene was providing an abundance of them. In particular, the machine catered to arcade fans who prized the 2D shoot-'em-ups and fighting games that were falling out of fashion in the West. RAM expansion modules were released which allowed closer conversions than could be achieved on the PlayStation, including more animation frames and in some cases additional features. In the UK, *Sega Saturn Magazine* would refocus around this hardcore audience and became a rare example of an official publication that covered the import market, providing in-depth looks at games like *Metal Slug* and *X-Men Vs Street Fighter*.

But while the Saturn had its strongest ever year in Japan, Sony managed to trump Sega in the RPG race. Squaresoft's *Final Fantasy VII* was a monster hit upon

> **"It was nowhere near as bad as the PlayStation fans and press were making out"**
>
> Nick Burcombe

» Sonic was something of a non-factor on the Saturn, reduced to spin-off and compilation releases.

its launch in January 1997, selling over two million copies in just three days and helping to draw players away from Sega's hardware. The Saturn would maintain a decent standing and hosted many of the year's best-selling games, but the PlayStation had clearly pulled in front and was still accelerating. Unlike in the West, where the company had basically given up marketing the system, Sega was still in a good enough position that it could revitalise its brand. The company began a new advertising campaign around the character Segata Sanshiro, a parody of film character Sugata Sanshiro who would punish people who weren't playing the Saturn with judo throws. The character gained a cult following and the renewed marketing push helped to sustain the system into 1998, even spawning a spin-off Saturn game.

But for fans of the Saturn, 1998 was to be a bittersweet year. The final few games that trickled out in the West included absolute classics like *Panzer Dragoon Saga* and *Burning Rangers*, but release schedules were barren. In Japan, hardcore shoot-'em-up *Radiant Silvergun* turned heads and *Sakura Taisen 2* sold ▶

» *Panzer Dragoon* was the most expensive game Sega had ever developed.

» Games that were ported from other systems tended to struggle on Saturn.

» We're not a big fan of the chunky Western pad but many gamers swear by it.

▶ half a million copies in a blockbuster first week, but software production was evidently winding down as Sega prepared to introduce the Dreamcast, with over 100 fewer titles produced than in 1997. The machine was for all intents and purposes finished, though a handful of games would be released in 1999 and 2000 (less than 20 in total), including the excellent *Street Fighter Zero 3*.

It's not hard to see why the Saturn failed so spectacularly in the West – put simply, it was the wrong machine for the time. Tastes were shifting, both in terms of what games looked like and how they played. Polygonal graphics became the norm in the Saturn's generation, and the Saturn wasn't best equipped to handle them. It's also worth noting that though it made an initial impact with excellent arcade conversions, the PlayStation came to be defined by games like *Final Fantasy VII*, *Metal Gear Solid* and *Gran Turismo* – longer games, games with cinematic ambitions, and games which opted for more muted colour palettes to strive for realism. Meanwhile, the N64 was offering expansive 3D worlds in *Super Mario 64*, *The Legend Of Zelda: Ocarina Of Time* and *Banjo-Kazooie*. These were the types of games that consumers came to favour and they were not abundant on the Saturn.

But it's similarly easy to see why there's still a great deal of affection for the Saturn. The Saturn is defined by games like *Sega Rally*, *NiGHTS* and *Virtua Fighter 2* – experiences drenched in colourful arcade flair, of the type rarely seen today. If you ever ventured into an arcade during the mid-Nineties, the Saturn is bound to host a number of your favourite games, and the system's strengths mean that it has a lot of excellent 2D games, many of which have aged better than the early 3D titles found on 32-bit platforms. The very fact that the Saturn offered such an alternative approach to gaming in the mid-Nineties is what makes it so worthwhile today – not only does it boast a line-up of great games, but those games are different enough to complement the other two platforms' offerings. Gamers of the Nineties might have thought Sega was on another planet, but today we can appreciate the Saturn for being worlds apart from the competition. ✱

ESSENTIAL SATURN IMPORTS

Darran Jones will argue that Sega's 32-bit console was built solely to play Saturn shooters, but plenty of other genres are also represented, from racers to RPGs

RADIANT SILVERGUN
DEVELOPER: Treasure **YEAR:** 1998

■ Everything about *Radiant Silvergun* is magnificent. Graphically it's spectacular with all sorts of fancy tricks that push the Saturn's hardware to its limits. Mechanically it impresses as well with a perfectly balanced weapon system, a colour coding scoring system – that would admittedly be refined in spiritual successor, Ikaruga – and some incredibly challenging bosses. Even a digital release on Xbox Live Arcade hasn't stopped copies of the Saturn original from selling for north of £100 on auction sites. An incredible shooter deserving of all its praise.

SHINREI JUSATSUSHI TAROMARU
DEVELOPER: Time Warner Interactive Entertainment
YEAR: 1997

■ Sadly, its insane price tag and sheer rarity will mean many will not have had a chance to experience *Shinrei Jusatsushi Taromaru* (or *Psychic Assassin Taromaru*). You're missing out on a delightfully nutty game that takes elements of *Shinobi* and *Alisa Dragoon* and marries them to insanely over-the-top action scenes that involve gigantic frogs and fantastic scaling and rotating effects. The difficulty is a little unfair in places, but the impressive visuals, inventive level design and stunning animation certainly makes up for it. If there's a better game where you can run across the backs of stampeding bulls, we've not played it.

MAGIC KNIGHT RAYEARTH
DEVELOPER: Sega, Working Designs **YEAR:** 1995

■ Based on the Japanese manga, *Magic Knight Rayearth* is easily the best playable import RPG, thanks to a highly entertaining localisation by Working Designs, its fun combat system (you effectively control one character at a time, switching between them tag-team style) and some delightful 2D visuals. Unfortunately, its late release (it arrived in 1998, three years after the Japanese release) means you'll be hard pushed to get it for under £100. While we're on the subject of RPGs we stayed away from the many great Japanese ones due to their general inaccessibility.

KONAMI ANTIQUES: MSX COLLECTION ULTRA PACK

DEVELOPER: Konami **YEAR:** 1998

■ There's a host of fantastic compilations on the Saturn, from Capcom's superb *Generation* series, to various *Sega Ages* releases. We're going to go for this solid effort from Konami, which took its three PlayStation compilations and packed them onto one disk. An impressive 30 games are included covering everything from *Yie Ar Kung-Fu* to *Gradius*. The quality is very good, while the presentation is also superb. Konami created some cracking games for the MSX, so this is a great way to experience them.

DAYTONA USA: CIRCUIT EDITION

DEVELOPER: Sega **YEAR:** 1997

■ Okay so *Daytona* is available in the West, but let us explain its inclusion here over the likes of *Gale Racer*. The original *Daytona* played well enough but looked a bit pants. *Championship Circuit Edition* was then released, which added two new tracks, a link-up mode and additional music. *Circuit Edition* goes that little bit further by adding the excellent *Daytona Medley*, the ability to alter the drift mechanics of your vehicle – which greatly alters the way the cars handle – and the option to race at different times of day. It's the definitive version of the best Saturn racer that isn't called *Sega Rally*.

BUBBLE SYMPHONY

DEVELOPER: Ving **YEAR:** 1997

■ There's a host of import platformers for the Saturn, from *Astal* to *Mizubaku Daibouken*, but we kept returning to this charming effort. Despite being released after *Rainbow Islands*, it's subtitled as *Bubble Bobble II*. Franchise confusion aside, it's a fantastic game and everything you'd expect from a 32-bit *Bubble Bobble* release. There are four different heroes to choose from, each with their own skills; bosses are far more plentiful; it's possible to charge your shots and there are often multiple routes to take. It's otherwise more of the same, which means it's amazing fun to play.

ELEVATOR ACTION RETURNS

DEVELOPER: Ving **YEAR:** 1997

■ Taito's sequel to its popular arcade game was a marked improvement and particularly good on Sega's console. It's a wonderfully slick run-and-gun with gritty looking visuals, well-animated enemies and plenty of variety in its stages. It retains the same gameplay of the original but it feels much better to play thanks to tight controls and a challenging time limit that ensures you're always trying to reach red-coloured doors as quickly as possible. Other improvements include an excellent co-op mode, a vast array of new weaponry, the ability to throw bombs and the ability to explode oil drums to take out nearby enemies.

STREET FIGHTER ZERO 3

DEVELOPER: Capcom **YEAR:** 1999

■ While the first two *Zero* games reached the West, *Street Fighter Zero 3* remained a Japan exclusive. It's a stunning conversion of the arcade original, with a gigantic roster of characters impossibly slick animation and glorious backdrops. In addition to introducing the likes of R Mika, Juni and fan favourite Karin, Capcom also overhauled the combat system, adding three different playing styles called 'isms' and a new Guard Power Gauge that results in a 'guard crush' whenever it's fully depleted. It's another pricey Saturn game, though, with the RAM cart version costing a small fortune.

TOP

25

SEGA SATURN
GAMES

The Saturn might have struggled at retail, but its software line-up was enviable. Nick Thorpe counts down top 25 games on Sega's black box, as voted for by Retro Gamer readers

Sonic R
■ **DEVELOPER:** TRAVELLER'S TALES
■ **YEAR:** 1997 ■ **GENRE:** RACING

24 **The Saturn years** were Sonic's quiet spell, as the speedy critter took a back seat to Sonic Team's other projects, but he did still manage one classic release in this on-foot racing game. The game's key feature was its magnificently designed circuits – all five were packed with secrets and shortcuts and needed to be fully explored to progress, adding a touch of *Sonic*'s platforming heritage to the racing genre. It was also one of the Saturn's prettiest releases, with Traveller's Tales managing to squeeze some impressive transparency effects out of the hardware. It'll only take a day to unlock all of the secrets, but you'll have a great time doing so.

Panzer Dragoon
■ **DEVELOPER:** TEAM ANDROMEDA
■ **YEAR:** 1995 ■ **GENRE:** SHOOT-'EM-UP

25 **Kicking off your** top 25 is one of the Saturn's earliest hits. This on-rails shooter expanded on the formula of games like *Space Harrier* by adding the ability to rotate the camera, allowing the player to tackle enemies from every direction. Upon its release in 1995, *Panzer Dragoon* was the most expensive game Sega had ever developed, a fact that shines through in the game's production values.

Soukyugurentai
■ **DEVELOPER:** RAIZING
■ **YEAR:** 1997 ■ **GENRE:** SHOOT-'EM-UP

23 **It's often been** said that a Saturn owner must be willing to import to get the most from their machine. *Soukyugurentai* is an uncompromisingly difficult shoot-'em-up built from scaling sprites rather than textured polygons, and a game makes for strong evidence to support that statement. The *RayForce*-inspired lock-on mechanics make for a fantastic game, but one which ran against the prevailing tastes of the Western market.

Shining Force III

■ **DEVELOPER:** CAMELOT SOFTWARE PLANNING
■ **YEAR RELEASED:** 1998 ■ **GENRE:** RPG

22 **Just like its** Mega Drive forebears, *Shining Force III* takes a place amongst the best RPGs on the Saturn. You play as the young lord Synbios, caught in a war between his native Aspinia and the Empire of Destonia, who needs to stop a mysterious sect that seeks to intensify the conflict. *Shining Force III*'s distinguishing feature is its fantastic battle system, which adds tactical elements such as positioning and range to the standard RPG combat formula.

As one of the Saturn's best late releases, *Shining Force III* is highly desirable in its English language incarnations, frequently selling for prices between £50 and £100. However, if you're able to read Japanese, you are in luck. Not only is the game cheaper, it's part of a trilogy – the translated game is *Shining Force III Scenario 1*, with the second and third parts following the stories of significant characters met in the first.

Duke Nukem 3D

■ **DEVELOPER:** LOBOTOMY SOFTWARE
■ **YEAR RELEASED:** 1997 ■ **GENRE:** FIRST-PERSON SHOOTER

20 **Now, here's an** interesting one. *Duke Nukem 3D* was one of two major PC first-person shooters that Sega licensed for Saturn release (the other being *Quake*), with Lobotomy chosen for development duties based on its outstanding work with *Exhumed*. Both turned out well, but *Duke* edged it. It seems that people can't get enough of the Duke's foul mouth and (literal) toilet humour, and Lobotomy's excellent work on the conversion ensured that Saturn owners got the full experience. In fact, with the Nintendo 64 version's censorship and the PlayStation version's technical deficiencies, the Saturn version is arguably the best.

But the reason that this entry is interesting is that many of the votes were cast on the strength of something other than the main game. *Duke Nukem 3D* included a hidden game called *Death Tank Zwei*, accessible by destroying every toilet in the game or having a save for either of Lobotomy's other Saturn games. Taking advantage of the multi-tap to support up to seven players, the game played like a real-time version of multiplayer classic *Worms* – a fun, chaotic blaster that ranks as one of gaming's best ever secrets.

Die Hard Arcade

■ **DEVELOPER:** SEGA
■ **YEAR:** 1997 ■ **GENRE:** BEAT-'EM-UP

21 **Sega's approach to** licensing with this game certainly was interesting – it was originally released in Japan as *Dynamite Deka*, and featured a cop who looked a bit like Bruce Willis fighting his way through a terrorist-filled skyscraper. So for the Western release, Sega picked up the *Die Hard* licence and called it a day. That would have been fine, but we don't remember Hans Gruber being bald or kidnapping the President's daughter, nor the bit where John McClane fights four-legged robots.

While it might not have been the closest film adaptation ever released, *Die Hard Arcade* delivered where it counts. Directed by beat-'em-up veteran Makoto Uchida, the game includes some delightfully over-the-top action, with particular focus on awesome weapons. The combination of a lighter and spray can is vicious, but knocking enemies across the room with an anti-tank rifle remains our favourite bit.

> *"Played Death Tank Zwei for literally years with university flatmates"*
> **GREY FOX**

Saturn Bomberman

■ **DEVELOPER:** HUDSON SOFT
■ **YEAR:** 1996 ■ **GENRE:** ACTION

19 *Bomberman* **was already** renowned as one of the greatest multiplayer games of all time, but the Saturn version actually managed to surpass its predecessors by supporting up to ten players at once – one of the best reasons to own a multi-tap.

Mass Destruction

■ **DEVELOPER:** NMS SOFTWARE
■ **YEAR:** 1997 ■ **GENRE:** SHOOT-'EM-UP

18 **This fast-paced** tank shoot-'em-up lives up to its name, as most environmental features can be destroyed. While it's pretty simplistic, the game is technically very sound and remains immensely satisfying thanks to some gigantic explosions.

Burning Rangers

■ **DEVELOPER:** SONIC TEAM
■ **YEAR:** 1998 ■ **GENRE:** PLATFORM

17 **Sonic Team's final** Saturn release saw players rescuing civilians and fighting fires in disaster areas. The game was a technical showcase, featuring large 3D worlds and some impressive visual effects that had been thought to be impossible on the system.

Panzer Dragoon Zwei

■ **DEVELOPER:** TEAM ANDROMEDA
■ **YEAR:** 1996 ■ **GENRE:** SHOOT-'EM-UP

16 **The return of** *Panzer Dragoon* saw the original game's formula improved, with stages featuring alternate paths and player performance tracking. Coupling these improvements with another quality soundtrack and improved visuals, it perfectly fulfilled its role as a sequel.

Galactic Attack

■ **DEVELOPER:** TAITO
■ **YEAR:** 1995 ■ **GENRE:** SHOOT-'EM-UP

15 **Better known as** *Layer Section* to the Saturn's importers and *RayForce* to arcade aficionados, Taito's vertically-scrolling shooter made impressive use of sprites to simulate 3D environments and introduced a lock-on laser that could target enemies at a lower altitude.

Athlete Kings

■ **DEVELOPER:** SEGA

■ **YEAR RELEASED:** 1996 ■ **GENRE:** SPORTS

14 **A classic decathlon** game in the style of *Track & Field*, *Athlete Kings* didn't have an awful lot of competition on the Saturn but still managed to impress with tight gameplay and attractive high-resolution visuals. The charm of *Athlete Kings* was its inclusion of an international cast of characters with their own individual strengths and weaknesses

– British beefcake Jef Jansens was great at throwing events while Chinese teenager Li Huang was a champion sprinter.

Such was the quality of *Athlete Kings* that the game's Dreamcast successor *Virtua Athlete 2K* failed to live up to its legacy, with fewer events and a notable lack of amusing competitors. Also worth a look is the winter sports sequel *Winter Heat*, which takes many of the game's characters and allows them to compete in a variety of sports that revolve primarily around sliding.

> "Jef Jansens in the zebra lycra suit with a 'fro… what a hero!"
> **ANDREW_ VERSION1**

Virtua Cop 2

■ **DEVELOPER:** SEGA AM2

■ **YEAR RELEASED:** 1996 ■ **GENRE:** LIGHTGUN SHOOT-'EM-UP

13 The *Virtua Cop* series has always aspired to the action movie ideal and much like the best action sequels, *Virtua Cop 2* went above and beyond with the mantra 'bigger, better, more'. While the basic gameplay was more or less identical to that of the original *Virtua Cop*, the second game made a number of improvements, particularly when it comes to level design.

Every stage in *Virtua Cop 2* allows the player a choice of two routes, including the addition of a Saturn-exclusive route for the Expert stage. They're packed with set pieces too, from the car chase of the opening stage to a shootout on an underground train. The range of options available for home players also met AM2's previous high standards, even allowing players to swap *Virtua Cop 2*'s arcade scoring out for the excellent scoring system of the original game.

Exhumed

■ **DEVELOPER:** LOBOTOMY SOFTWARE

■ **YEAR RELEASED:** 1996 ■ **GENRE:** FIRST-PERSON SHOOTER

12 **Thanks to the** saturation of first-person shooters about space marines and the SAS, *Exhumed*'s Egyptian theme is just as refreshing today as it was in 1996 – but it wasn't just thematically novel. Unusually for an FPS of the time *Exhumed* offered a non-linear campaign, exploring design territory that would later be refined by the *Metroid Prime* series – as relics were discovered, players were able to explore levels further by jumping higher or walking on lava.

Though it also appears on the PC and PlayStation, the Saturn version of *Exhumed* receives a lot of love. Lobotomy's command of the hardware was excellent, with the Slavedriver engine – named after *Exhumed*'s US title *PowerSlave* – handling 3D level designs at a high frame rate. Additionally, the Saturn game has exclusive features including power-ups and the original *Death Tank*.

> "Proved that the Saturn was a capable machine, in the right hands"
> **SeanR**

Daytona USA

■ **DEVELOPER:** SEGA AM2

■ **YEAR RELEASED:** 1995 ■ **GENRE:** RACING

11 **Controversy! The conversion** of *Daytona USA* was a frequent target of abuse in the Saturn's early life thanks to a variety of graphical deficiencies – chiefly the letterboxed display and major pop-up. The game was also single-player only, omitting the multiplayer that had propelled the original arcade version to massive success. The scale of the missed opportunity was such that Sega later released an updated game, *Daytona USA Championship Circuit Edition*, which addressed all of these complaints and contained additional tracks. But that one didn't chart – you've voted for the original version here.

You see, despite its visual flaws, the original Saturn version of *Daytona* gets a lot else right – things which were changed in *Championship Circuit Edition*, much to the chagrin of many fans. *Daytona*'s arcade soundtrack, which features lines like "I wanna fly sky high!" belted out in wobbly English, is a key part of the game's charm and successfully makes it across to the Saturn. So too does the all-important handling of the arcade game, meaning that while it looks rough, it *feels* right.

> "It looks comically bad, but it's one of the purest arcade racers out there"
> **Qazimod**

Virtua Fighter 2

■ **DEVELOPER:** SEGA AM2

■ **YEAR:** 1995 ■ **GENRE:** FIGHTING

10 **It's hard to** overstate the impact that *Virtua Fighter 2* had – it is, after all, the game a *CVG* review called "the greatest console game ever made". For a start, it looked fantastic. By avoiding the temptation to include the arcade game's 3D backdrops and settling for large scaling sprites, the development team was able to focus on the attributes that would best show off *Virtua Fighter 2*'s incredible animation – high resolution and a high frame rate. The result was a visual appearance that wasn't arcade perfect, but nevertheless raised the graphical bar for the entire console market.

But *Virtua Fighter 2* was hardly a superficial beauty, as it effortlessly surpassed other 3D fighters to become the premier game on the market. The primary improvement over the original game was the addition of two new characters using unorthodox martial arts, the elderly kung fu practitioner Shun Di and teenager Lion Rafale, a user of praying mantis kung fu. All of the returning characters sported a larger repertoire of moves, including the debut of iconic techniques like Jacky's Lightning Kicks and Akira's Hougeki Unshin Soukoshou – better known as the Stun Palm of Doom. Meanwhile, the game allowed players an increased ability to answer attacks, with the introduction of throw escapes and a greater emphasis on reversal moves.

The *Virtua Fighter* series has always been among the most hardcore of fighting games, with layers of depth hiding beneath the simple three-button controls, and Sega made sure to cater for its audience. The game included the original's balance as well as the fixes from *Virtua Fighter 2.1*, alongside a wealth of options including the fantastic Expert Mode that allowed the CPU to learn your favourite techniques. And that's the trick – *Virtua Fighter 2*'s arcade version was a fantastic starting point, but it's the comprehensive conversion work that makes it the perfect start to your top ten.

Street Fighter Alpha 2

■ **DEVELOPER:** CAPCOM

■ **YEAR RELEASED:** 1996 ■ **GENRE:** FIGHTING

9 ***Street Fighter Alpha's*** revamped visual style and new character roster were massively welcome after four years of the *Street Fighter II* series, but the sequel blew it out of the water. The main new addition was the custom combo, an alternate use for the super bar that gave players a time limit in which to create their own string of attacks. The game's character roster also greatly increased, with Gen, Dhalsim and Zangief returning from previous games. The schoolgirl Sakura was the game's single new character and quickly became a fan favourite, but our favourite inclusion was the knife-wielding *Final Fight* boss Rolento.

> **"One of the best *Street Fighter* games on what is still the best control pad released"**
> **The-Plethora**

Virtua Cop

■ **DEVELOPER:** SEGA AM2

■ **YEAR RELEASED:** 1995 ■ **GENRE:** LIGHTGUN SHOOT-'EM-UP

8 **When introduced in** arcades in 1994, *Virtua Cop* wowed players with its visuals – 3D allowed for convincing environments and enemies with a greater range of animations. The Saturn version successfully replicated that impression, but the real key to *Virtua Cop*'s success was solid mechanics. While the game stuck closely to the fundamentals of the lightgun genre – shoot enemies before they shoot you – the heads-up display identifying the next enemies to fire was a welcome improvement. Better still was the scoring system which rewarded players for avoiding damage and accuracy, and even played into the law enforcement theme – a non-lethal 'Justice Shot' awarding by far the most points.

Baku Baku

■ **DEVELOPER:** SEGA

■ **YEAR RELEASED:** 1995 ■ **GENRE:** PUZZLE

7 ***Baku Baku* is** a falling block puzzler with a structure that will be familiar to players of *Super Puzzle Fighter II Turbo*. Food blocks fall down the screen and must be matched with an animal block, which will eat any food blocks directly connected to itself – and as you're always pitted against an opponent, causing combos will drop blocks onto the enemy's screen, hastening your victory.

Baku Baku was hardly a challenge for the Saturn hardware, with only some nice presentation setting it apart from the extremely faithful Game Gear conversion that arrived in 1996. But nobody cares how hard the hardware is working when the gameplay is up to scratch, and the frequent all-night multiplayer sessions are testament to the fact that *Baku Baku* got it right in that regard.

Fighters Megamix

■ **DEVELOPER:** SEGA AM2
■ **YEAR RELEASED:** 1997 ■ **GENRE:** FIGHTING

5 **Mixing the serious,** hardcore style of *Virtua Fighter 2* with the fast-paced action of *Fighting Vipers* might have seemed like a hard task, but AM2 handled the crossover with ease and produced one of the system's most critically acclaimed fighting games. The game's mammoth roster of 32 fighters included a wide range of unlockable characters, drawn from sources as diverse as *Virtua Cop*, *Rent-A-Hero* and *Daytona USA*. Meanwhile, the gameplay featured a number of improvements from *Virtua Fighter 3* – characters had their new moves, while the new escape button allowed for 3D movement to avoid attacks.
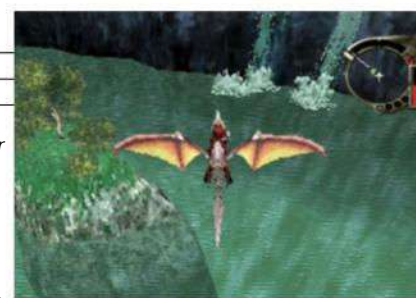
> "This game enthralled me, hoovering up days of my life"
> **WIPER**

Radiant Silvergun

■ **DEVELOPER:** TREASURE
■ **YEAR RELEASED:** 1998 ■ **GENRE:** SHOOT-'EM-UP

6 **Be attitude for** gains! The Saturn's most celebrated import release climbs high in your voting, overcoming the challenge posed by its high market price. Treasure can usually be relied on for an innovative approach to a genre, and *Radiant Silvergun* certainly delivered. Instead of rationing weapons via power-ups like other shooters, *Radiant Silvergun* gave you access to a whopping seven by default – all of which were necessary to make it through the game's challenging stages. Treasure pushed the Saturn to the maximum in order to create one of the most visually arresting 2D games of the generation, though freely dropping in 3D objects when needed – most memorably during the game's epic final boss fight.

Panzer Dragoon Saga

■ **DEVELOPER:** TEAM ANDROMEDA
■ **YEAR RELEASED:** 1998 ■ **GENRE:** RPG

4 **We're hard pushed** to conceptualise many shoot-'em-ups as RPGs, but *Panzer Dragoon Saga* made the transition look easy. The setting of the series had always been captivating and the visuals were exemplary. Best of all, the battle system was based on correctly positioning your customisable dragon in order to avoid attacks and strike weak points, allowing for a more involving experience than the standard menu-based combat of its peers in the genre. These days, the game is as famous for its price as its quality, so ensure that you take the opportunity to play it if you can.

Guardian Heroes

■ **DEVELOPER:** TREASURE
■ **YEAR RELEASED:** 1996 ■ **GENRE:** BEAT-'EM-UP

3 **As Treasure's first** Saturn release, *Guardian Heroes* had some big expectations to live up to following a string of Mega Drive classics. The game exceeded expectations, utilising the Saturn's sprite-handling capabilities to produce a beat-'em-up with greater levels of carnage than any before. It also had RPG elements, with players able to develop character attributes and choose different story paths, with multiple endings available. It received a boost in the voting as the only one of Treasure's Saturn games that doesn't require importing – but we'd be surprised to see anyone questioning its top three finish.

> "That often-seen RPG-lite stuff that a lot of games since have done? Pretty much stole the schtick from here"
> **JAYEXTEE**

NiGHTS Into Dreams

■ **DEVELOPER:** SONIC TEAM
■ **YEAR RELEASED:** 1996 ■ **GENRE:** ACTION

2 **It's telling that** even after the better part of two decades, we struggled to place *NiGHTS* in a genre – there's simply nothing quite like it. You play as the titular jester, flying around predetermined circuits and collecting items to move on to the next circuit. Once four have been finished, it's boss time. Simple stuff, but the inventive stage designs and impressive visual tricks like warping scenery will keep your attention.

But the moment when you discover the heart of *NiGHTS* is the first time you take the step of prolonging your stay on each circuit to squeeze every point from the time available. This score attack action is demanding, but greatly helped by the precise control afforded by the bundled analogue pad. Ultimately, that's why *NiGHTS* is such a great example of Sega's best qualities – it's a bold, unconventional design supported by good hardware.

Sega Rally Championship

DEVELOPER: SEGA ■ **YEAR RELEASED:** 1995 ■ **GENRE:** RACING

"The best rally game there ever was or ever will be"
RAVEN

1 **When you're looking** at the history of the Saturn, the late stages of 1995 represent a key period for development. This was a time when the press was buzzing with talk about the Saturn's 'big three' arcade conversions – *Virtua Fighter 2*, *Virtua Cop* and *Sega Rally Championship*. All three had delivered in the arcade, advancing their genres and raking in the cash. Sega promised that these three games were the key releases for the year, games that would give Saturn owners something to shout about and non-owners some very good reasons to pick up the console. As you can tell by the fact that all three have placed in the top ten of this feature, those were promises that Sega delivered on.

It was immediately obvious that *Sega Rally* was a great conversion. The thrill of the arcade game was in its sublime handling; a model of rally racing that superbly captured the shifts in your car's response as it shifted from tarmac to thick mud. Each of the courses – three plus the secret Lakeside track – was expertly designed, with a variety of challenging corners to impede your progress against the 14 other racers in the field. It was a great conversion too. The all-important multiplayer was retained and the visuals were a good approximation of the Model 2 version, with the high frame rate and minimal pop-up quickly banishing the deficiencies of *Daytona USA* to memory.

But *Sega Rally* was a bit different to its brethren in the **big** three. While *Virtua Fighter 2* eventually had to contend with the likes of *Fighting Vipers* and *Dead Or Alive* and *Virtua Cop* would be superseded by its own sequel, no Saturn **game ever came close** to toppling *Sega Rally* as the king of the road. It wasn't for lack of competition – challengers came and went, many of them conversions of Sega's own arcade hits. While some were disappointing, like *Sega Touring Car Championship*, the likes of Tantalus Interactive's excellent *Manx TT* conversion posed genuine threats to *Sega Rally*'s crown. All of them failed to dethrone the king.

The reader vote wasn't close. It became clear early on that *Sega Rally* would be at the top of your list, and the eventual scale of its victory was overwhelming – if you combined the votes of the games in second and third, *Sega Rally* would still have been at the top. The compelling structure of a single race across three stages, the iconic Lancia Delta and Toyota Celica, Takenobu Mitsuyoshi singing the game over theme – this was the perfect convergence of brilliant individual elements into a satisfying whole. We've previously called *Sega Rally Championship* the best racing game ever and you, the readers, have voted it the best Saturn game. There's no question – *Sega Rally* is one of the best games ever.

TOTAL TIME
0' 24" 12
LAP TIME
1 0' 24" 12

56

POSITION
14/15
BEST TIME
1 3' 25" 25
2 3' 27" 83
3 3' 28" 67

Five reasons why it's great

You'll constantly revisit the game to improve your best times, just for the joy of the perfect handling.

The two-player mode was one of the first to include a catch-up mode to ensure close races.

The conversion is amongst the best to have reached the Saturn, proving its ability to handle arcade games.

The course design is incredible – *Sega Rally*'s four circuits will stick in your memory for years.

Takenobu Mitsuyoshi sings the classic game over theme. We really can't emphasise this enough – it's excellent.

175 km/h
4 SHIFT

RADIANT

Dave McCarthy takes a look back at Radiant Silvergun on Saturn, the game that once launched a thousand eBay bids

s it possible to write about *Radiant Silvergun* without mentioning how much it costs? Apparently not. But there's a reason for that. Those high prices – anywhere from £100 to £150 for an original copy on eBay at the time of writing – have undoubtedly cemented the game's reputation as a highly sought-after collector's item. Yet they have also obscured its true value as one of the most inspirational videogames of all time.

As much as they have granted the game cult status, those high prices have also limited the number of people who have actually played it, and fuelled suspicions

that this was one of those games that only acquired its reputation on the back of limited availability and Japanese quirkiness. In the 13 years since the game's release, first as a coin-op cabinet and then as a Saturn conversion, more people had heard of *Radiant Silvergun* than had actually seen a copy. But with the recent release of the Xbox Live Arcade port, it is, finally, a game that can be loved for the right reasons: as a towering test of both speed and intelligence, a reinvention of the shoot-'em-up genre, and a stern test of your ability to find hidden dogs.

The original coin-op version of the game was put together by a team of

just ten people in the slightly dingy, unprepossessing offices of tiny gaming powerhouse Treasure, the mad group of geniuses responsible for other cast-iron classics such as *Guardian Heroes*, *Sin And Punishment* and *Bangai-O*. But when it came to the Saturn release, fancy anime-style interludes were added courtesy of animation studio Gonzo, accentuating the importance of the game's story, which was unusually prominent for a genre that tends to give only the merest nod to any sort of narrative framework.

Radiant Silvergun, by contrast, takes a luxurious – for shoot-'em-ups – hour or so to scroll through
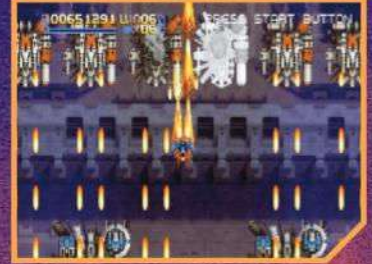
SILVERGUN

a story that takes you on a voyage through the very fabric of time and space. It's a tale that loops right back to the beginning of mankind and culminates in a showdown with a karate-kicking polygonal giant boss, Xiga, capable of unleashing waves of bullets while kicking, punching, leaping and running around a moody, thundercloud-clad background that lurches in all directions, years before *Rez* paid tribute with its running man boss.

So how did Treasure feel about that homage when it appeared a few years later? Masato Maegawa, the president and founder of Treasure, who has had a hand in all of the games the company has produced, displays nothing but enthusiasm. "I thought it was great!" he says. "We had actually done a running man boss before in *Gunstar Heroes* – it was like a recurring motif for us – so when we first saw it in *Rez* it wasn't like we thought they were

copying us or anything; it was just a nice confirmation that someone else thought it was a good idea to have a running man boss in a shooting game!"

But *Radiant Silvergun*'s running man was just one highlight of a sequence of dramatic boss encounters, each one demonstrating the game's impressive visual panache and superb use of 2D sprites and 3D spaces. Prefaced with just a stark message across the screen – 'WARNING, NO REFUGE' – bosses would swoosh around the screen before settling into their attack formation, whether that was a wireframe starship or a phoenix-shaped attack craft, each one typical of Treasure's fearless inventiveness and endless ideas.

But exactly where did those ideas come from? One commonly quoted source of inspiration for *Radiant Silvergun* is Irem's *Image Fight*, a coin-op shooter released about

ten years earlier, but as Maegawa says, if it hadn't been pointed out, the connection wouldn't have been entirely obvious. "The producer of the game, Hiroshi Iuchi, really loved *Image Fight,* and always mentions it," he laughs. "But when I saw the finished game, it was totally different. I don't know what it's got to do with *Image Fight.*" Pressing him on any other sources of inspiration proves to be slightly fruitless: "I don't read comics, I don't watch anime, I don't watch movies or TV, and actually my colleagues are often telling me off for not being up to date." And its genesis didn't even have much to do with any other games, either. "Even at that time people were saying

» **Breaking with shoot-'em-up tradition, *Radiant Silvergun* made all seven of its weapons available right from the very start of the game.**

❝ The producer of the game always mentions it, but I don't know what it's got to do with Image Fight ❞

I couldn't finish the game, so to debug it we had to bring in some top-notch players

RADIANT HISTORIA

WITH THE ORIGINAL *Radiant Silvergun* so hard to get hold of, many gamers have formed their impression of the game via *Ikaruga*, the game's spiritual successor, released a few years later for Sega's NAOMI board and ported for release on the Dreamcast and GameCube. But although the two games share similar mechanics, they're very different games. *Ikaruga* cuts down *Silvergun*'s three colours to just two, pares back the puzzle elements, and replaces its predecessor's leisurely pacing with a high-speed half-hour of always-intense action.

Though *Ikaruga* retains *Silvergun*'s technical gloss and superb graphics, there's none of the weapon levelling that took place in the original, nor that running man boss. The result is a much more streamlined, conventional shoot-'em-up than the original.

"*Ikaruga*'s subtitle was *Radiant Silvergun 2*, so there were common elements and the majority of the development staff were the same," explains Maegawa when pressed on the issue. "But the connection might not have been so obvious to users; it's more at the conceptual level."

Nevertheless, the connection has become even closer, and perhaps more obvious, thanks to the Xbox Live release of *Radiant Silvergun*, which comes complete with an all-new *Ikaruga* mode.

that the shoot-'em-up was a dying genre. And we had the idea for the game design a long time before it was released, so it wasn't really influenced by anything around at that time," says Maegawa.

Indeed, *Radiant Silvergun* was quite unlike anything that had gone before. "We were very happy that shoot-'em-up fans liked and supported the game," continues Maegawa. "But it's not just a

standard danmaku [bullet hell] shooter where you have to navigate through a screen full of bullets. It's almost more like a puzzle shooting game. So we think we created a new category of puzzle shooting games, and that genre has been supported by other shooters, and that's what we're most happy with."

There is certainly an element of bullet hell to *Radiant Silvergun*, and like many Treasure games, a fairly brutal learning curve – precisely because it takes a little while to get your head around those unprecedented puzzle elements. But the game – and, arguably, the entire genre – was transformed by the innovative game mechanics, which borrowed more from puzzle games and RPGs than other shooters. Those sorts of game design quirks are commonplace now, whether it's collecting jewels to activate slowdown in *Espgaluda*, using spell cards in the *Touhou* series, or grazing bullets to rack up your tension bonus in the *Shikigami No Shiro* games. But at the time it was revolutionary: *Radiant Silvergun* dispensed with the smart bomb and escalating weapon pick-ups that characterised the genre up to that point in favour of an elaborate, dizzyingly complicated framework with which players could unleash a coruscating, creative range of death, destruction and high scores.

The basic structure underlying that framework was the chaining system: killing enemies in sets of three according to their colour – red, blue or yellow – racks up progressively high scores. This

means, unusually, that it's actually in the player's interest to ignore the majority of enemies. But on top of these basic chains of successive enemies of the same colour, there were also super chains, weapon bonuses, colour bonuses, and even hidden dogs – 30 of them to be unlocked with your lock-on laser to achieve the rank of Dog Master. Indeed, choosing the right weapon at the right time was another element layered on top of the traditional danmaku techniques of memorising attack waves and grazing bullets.

Unlike conventional shoot-'em-ups, all seven of the game's weapons were available from the very outset, and players could switch between them at will: standard fire, weaker homing projectiles and wide-angle lasers mapped to the controller's three buttons, while different combos would produce close-range shots, lock-on lasers, rear fire and the Radiant Sword – capable of absorbing enemy attacks and unleashing a special, invulnerable retaliation. What's more, in the Saturn version of the game you could power up these attacks as you played, and use them in later games to level off the treacherous slopes of the difficulty curve. And all this set to music by Hitoshi Sakimoto, better known for his work on Square titles but here responsible for a rousing, electronic, orchestral accompaniment.

These puzzle game and RPG elements had evolved into a whole other beast by the time Treasure made *Bangai-O*, but in *Radiant Silvergun* they transformed the game and the genre, and paved the way for games that featured similar gameplay experiments. But they also resulted in a lot of complication, and the game's near-infinite depths brought with them their own difficulties. Not least of them was that the game was tricky to test.

Surprisingly, for such an unprecedented, complicated game, the actual development

» Sometimes *Radiant Silvergun* feels like a very traditional bullet-hell shooter, with screenfuls of bullets and loads of lasers. Not that it's a bad thing, in our book.

» An anime intro was added for the Saturn release, courtesy of animation house Gonzo, to explain the story.

» One of the keys to a high score is to pick off your targets wisely, chaining enemies of the same colour.

» And, of course, there are explosions. Lots of them. That look very nice.

» If you look closely, you might just be able to make out one of the game's many hidden dogs.

was relatively straightforward, as Maegawa explains. "At that time there were many projects we worked on that got to a point where we had to restart from scratch – we'd get to a certain point and decide to throw everything out and start again," he says. "But that never happened with *Radiant Silvergun*. It just went really smoothly from start to finish."

In some ways, he admits, it was a little more complicated than making games in the modern era. "In the old days, in the time of *Radiant Silvergun*, all of the programmers and designers were trying to suck every single drop of power out of the hardware to reach the maximum level. Now it's not like that; we have good middleware, so instead of spending our energy to persuade the hardware, we're using middleware to make the process much more efficient."

But, on balance, putting the game together was simple enough, and listening to Maegawa describe the technological environment in which it was created harks back to a simple, more innocent era of game development. "We didn't use any specific 3D tools," he points out. "We used LightWave for 3D objects, but for 2D tools we just used freeware that we downloaded from the internet. And we didn't use any specific or expensive hardware. We just used conventional, normal hardware to create the game."

So it wasn't until the game was largely completed and ready for testing that the real challenge started. "As I mentioned earlier, the development of the game went smoothly, and we didn't encounter any problems," Maegawa continues. "But I actually couldn't finish the game because it was too difficult, so in order to debug it we had to bring in some top-notch players from outside, who held various national records for shooting games. So the debug process was actually the toughest part."

But there was another difficult part to come. If the creative process on *Radiant Silvergun* could be said to have gone relatively smoothly, the same couldn't be guaranteed of the commercial process, of actually unleashing the game on unsuspecting audiences. Although those high-scoring champion gamers gave Treasure some idea of how *Radiant Silvergun* would be received by the genre's dedicated fans, there was no real way of telling what the reaction would be before the game's release because it was so comprehensively different to everything that had gone before.

"It's not like we knew for sure that it was going to be great," says Maegawa. "We certainly knew it was going to be a unique game – it was so different to all of the other shooting games. But that meant that there were positive and negative

opinions inside the company, and some anxiety about if the game was going to do well or not."

So much anxiety, in fact, that Maegawa actually went, in person, to watch people playing the game after it came out. "Actually, this was our very first coin-op game, so after it came out in the arcades we went and observed people playing the game, and they played it for a long time, which made us very happy." But did he tell them who he was? "Of course!" he laughs.

Being the diligent, head-down, hard worker that he is, Maegawa probably just told them his name. But he would have been entirely justified if he had introduced himself as the creator of one of the most amazing scrolling shoot-'em-ups of all time – an example of the genre that cemented Treasure's reputation for bending game styles in its ongoing pursuit of digital alchemy.

But if Maegawa could have changed one thing about *Radiant Silvergun*, what would it be? "Well, we had a few thoughts about ways to improve the game," he concludes. "That's why we made the XBLA version!"

ARCADE AUTHENTICITY

IF YOU'RE EXPECTING the recent release of *Radiant Silvergun* to reduce the price of the Saturn original, expect to be disappointed. Plenty of other videogame rarities have sustained their value in the wake of modern remakes and re-releases, and *Radiant Silvergun* has been available to play via MAME and Saturn emulators for a while now without affecting its value.

But if you're looking for authenticity at a slightly lower price, you'll be pleased to know

that the Japanese hardware expert Hori has announced a *Radiant Silvergun*-themed controller to coincide with the game's release on Xbox Live. The Real Arcade Pro.EX RS-1 isn't quite the real thing – there are eight buttons instead of three and you can plug in a headset to chat while you're online. But it's packed with the sort of quality Seimitsu parts you'd expect from Japan's foremost peripheral manufacturer – enough to match the excellence of the game itself.

DEVELOPER HIGHLIGHTS

GUARDIAN HEROES
(PICTURED)
SYSTEM: SEGA SATURN, XBOX LIVE ARCADE
YEAR: 1996

BANGAI-O
SYSTEM: N64, DREAMCAST, NINTENDO DS, XBOX LIVE ARCADE
YEAR: 1999

SIN AND PUNISHMENT
SYSTEM: N64, Wii
YEAR: 2000

VIRTUA FIGHTER:KY

WHO NEEDS FIREBALLS?

» **PUBLISHER** SEGA
» **RELEASED:** 1994
» **GENRE:** BEAT EM UP
» **FEATURED HARDWARE:** SATURN
» **EXPECT TO PAY:** A FEW QUID

HISTORY

When you look back at AM2's work over the years, and particularly the games where Yu Suzuki served as director rather than producer, it's easy to see what the team was always best at – putting an arcade spin on simulations. That's why *Virtua Fighter* stood out from the crowd, and still does today.

It would have been easy for the company to look at the popular fighting games of the day, like *Street Fighter II* and *Mortal Kombat*, and just do a 3D version of those. Instead we got something more akin to a martial arts simulator – the wow factor didn't come from gory finishing moves or fire-spitting fighters, but realistic-looking moves with smooth and varied animation that just wouldn't have been possible in a 2D game. It plays differently too, with much more close-quarters fighting than its competitors.

On the Saturn, *Virtua Fighter* was a statement of intent. Sega's biggest arcade hits would be coming home, and the Saturn was the only place to find them. The Japanese audience went crazy for it, buying copies at almost a 1:1 ratio with the console. Over here, crowds flocked to the textured polygons and flashy specials of *Battle Arena Toshinden* on the PlayStation instead.

However, time has vindicated people who picked the Saturn – *Virtua Fighter*'s emphasis on excellent animation and carefully recreated martial arts allowed it to evolve into one of the finest 3D fighting series, whereas *Toshinden* is a little more than a footnote in gaming history.
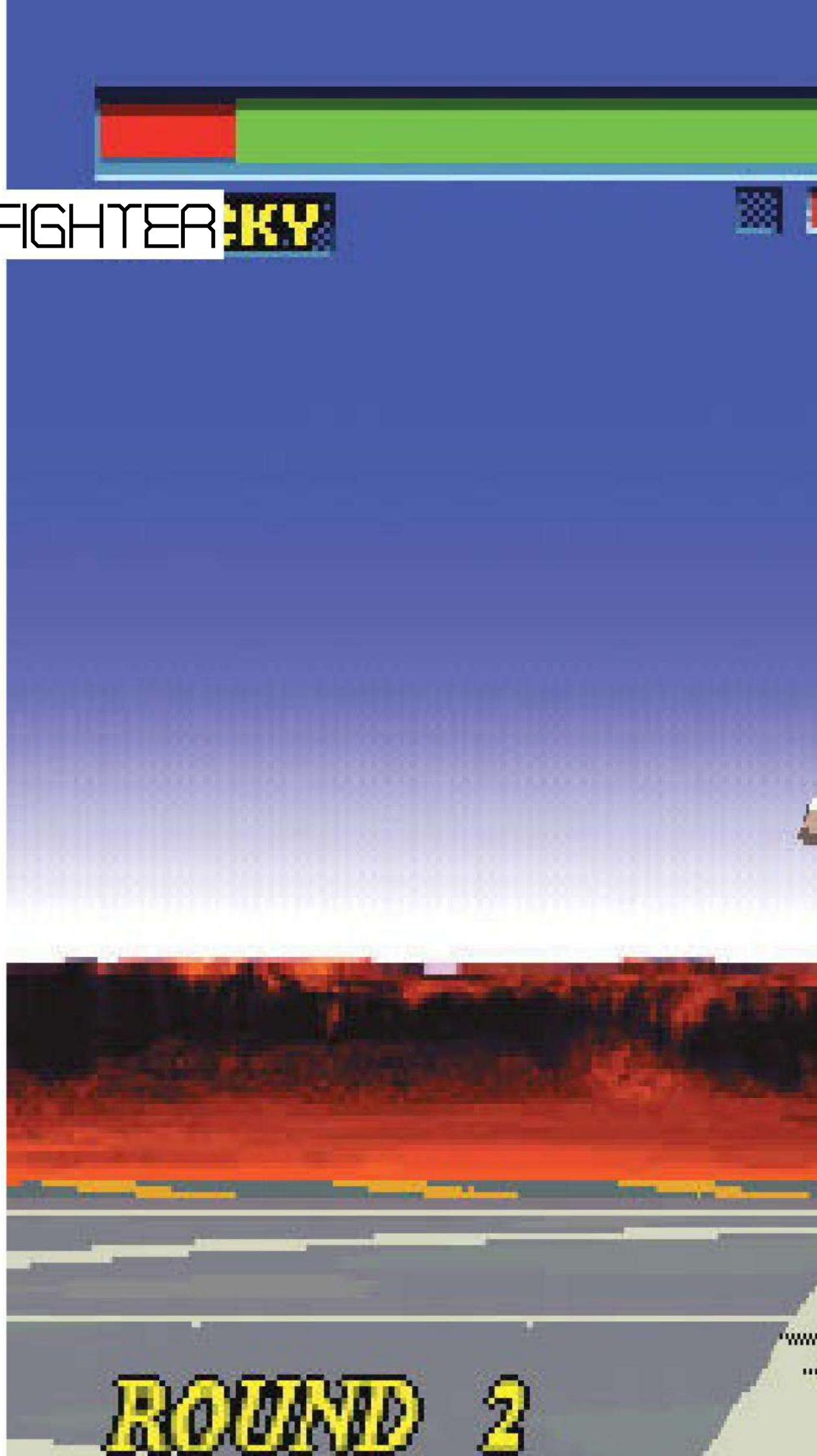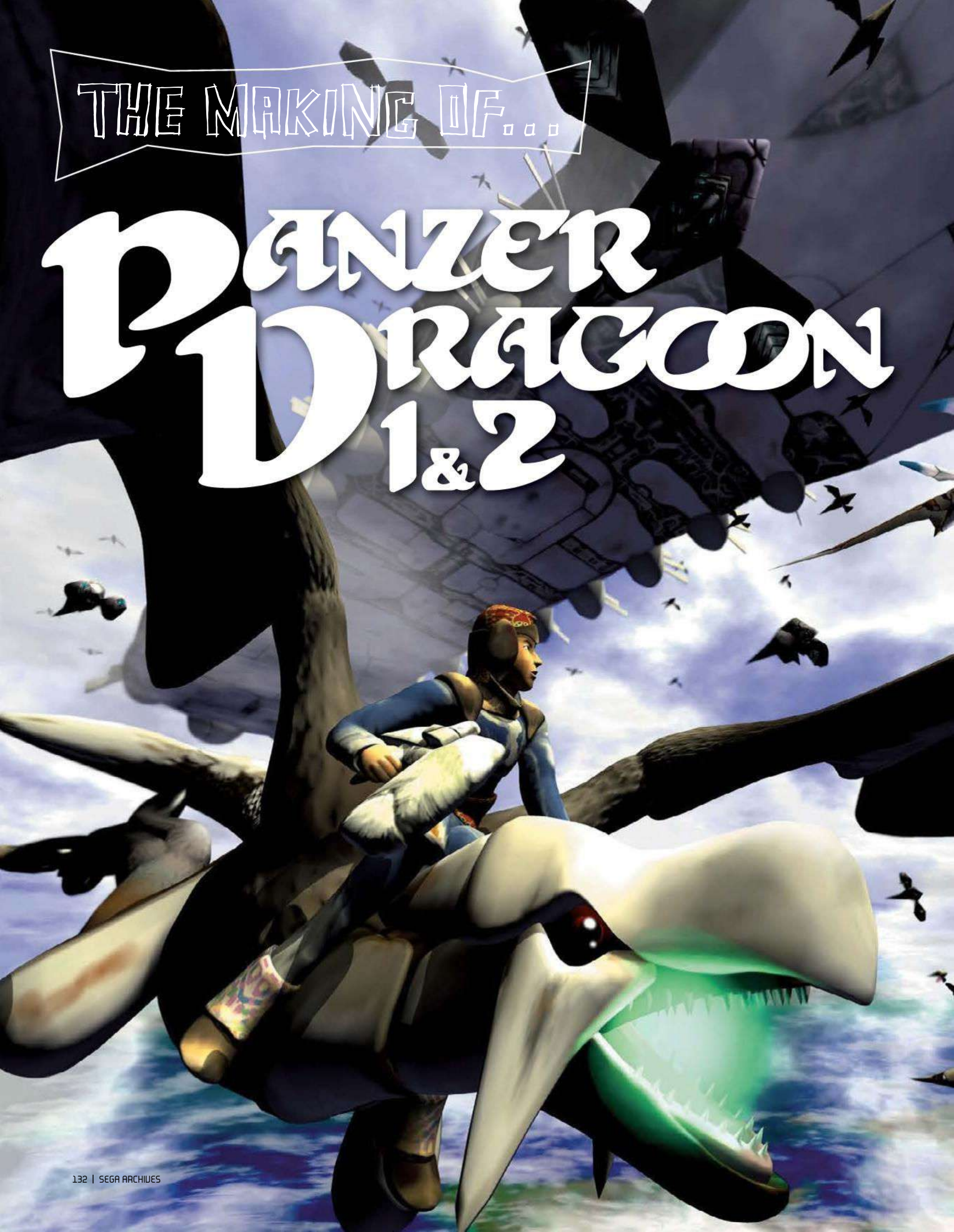
TIME

24"88

PRESS START BUTTON

JEFFR

48"7

PANZER DRAGOON 1&2

IN A LOOK BEHIND THE SCENES OF THE PANZER DRAGOON SERIES' DEVELOPMENT, JONTI DAVIES CATCHES UP WITH EX-TEAM ANDROMEDA ARTIST **KENTARO YOSHIDA** TO EXAMINE THE CREATION OF A BRACE OF SPECTACULAR SATURN GAMES

After the limited success of its Mega Drive-related CD hardware projects in the early-Nineties, Sega found itself in competition with a newcomer – Sony, with its PlayStation console – and preparing for a battle in which the rules of combat were not immediately clear to the more established of the two parties. Still, by 1993, Sega's higher-ups had decided they wanted cutting-edge 3D games to form the crux of the early Saturn line-up. One of the teams established to produce such titles was christened 'Team Andromeda' and would, during its five-year existence, shape a unique game series matching the allure of 3D shoot-'em-ups with an otherworldly RPG context. Team Andromeda's work culminated in the legendary 1998-vintage *Panzer Dragoon Saga*, a scarce game whose monetary value today is expensive yet doesn't seem overpriced (such is the quality of the experience). But first, let's hitch a ride on dragonback and journey to the first game in the series: *Panzer Dragoon*.

Kentaro Yoshida is today studio director at Q-Games, the Kyoto outfit behind the retro-styled *PixelJunk* series of PSN games, but he began his working life at Sega. "When we started work on *Panzer Dragoon*, I was in my second year at Sega and just a lowly artist," Kentaro recalls. "For *Panzer Dragoon* I did texturing, modelling… things like that. I did a lot of work on the boss scenes, as well. We had a veteran art director on the team, and the producer was also an old hand. I became the art director for *Panzer Dragoon Zwei*, but the concept art and movies were overseen by the previous art director, Manabu Kusunoki, who also did all of the dragon, character and world art in the original *Panzer Dragoon*."

In advance of the Saturn's arrival, Sega had begun to make changes to the structure of its internal teams. This was partly a response to changing technologies, but also a method of reinvigorating its pool of developers. Kentaro explains how Team Andromeda's make-up affected the production of *Panzer Dragoon*: "Team Andromeda and *Panzer Dragoon* were conceived at the same time. Everyone assigned to Andromeda was already working at Sega, but the team line-up was dictated by the fact that the Saturn hardware was quite a bit different from previous Sega consoles. With the Mega Drive, most of the [internal Sega] development teams were experienced

IN THE KNOW

» **PUBLISHER:** SEGA
» **DEVELOPER:** TEAM ANDROMEDA
» **RELEASED:** 1995 (PANZER DRAGOON), 1996 (PANZER DRAGOON ZWEI)
» **GENRE:** 3D SHOOT-'EM-UPS
» **EXPECT TO PAY:** £5 FOR EACH GAME
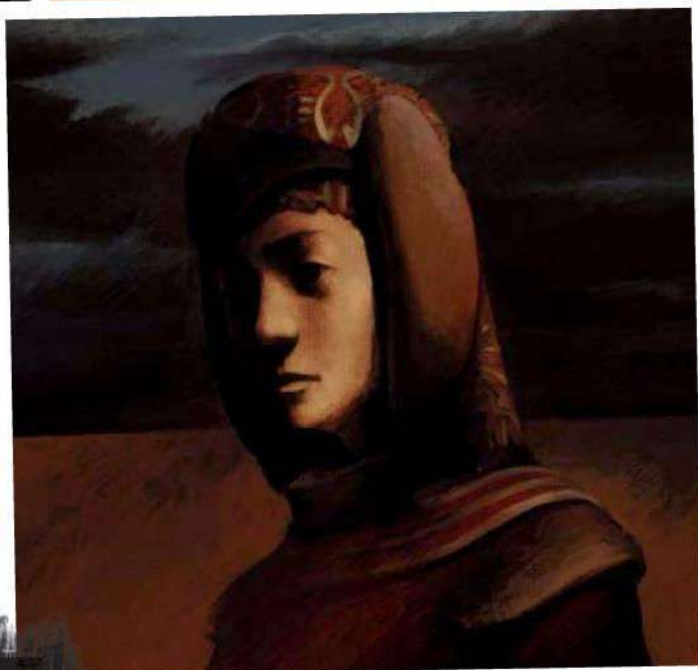
» **Above:** *Panzer Dragoon Zwei* began with your dragon grounded and galloping, but it would soon learn to fly.

Changing perspectives

The key differentiating factor between *Panzer Dragoon* and most other on-rails 3D shoot-'em-ups of the day is that Team Andromeda's game deigned to give the player freedom to aim and shoot in any direction. Kentaro Yoshida recalls that "Futatsugi, the main planner behind the controls, said, 'We've got to do this!' He wanted to make sure that *Panzer Dragoon* gave players something they hadn't experienced before, and he believed it was essential that players could look and aim anywhere and not have their shooting restricted. Of course, when the programmers heard about this design choice and imagined how many more calculations it would need, they didn't look too pleased [laughs]. But they went along with it and viewed it as a challenge, and I think it worked out fine in the end."

Indeed it did – in *Panzer Dragoon Zwei*. The aiming system in *Zwei* benefited from a redesign of the game's viewpoint, with the first game's multiple perspectives dropped in favour of a singularly better solution: "With *PD1* we really wanted to make the shooting mode of play happen in a first-person perspective so that you could feel as though it was actually you who was there," Kentaro says, "but with *Zwei* we wanted to show more of the dragon, pitching it in the middle of the screen and making it look more dynamic. In the end, *Zwei* was more fun to control because of this."

''Panzer Dragoon was at 20fps most of the time, but the programmers managed to engineer Zwei to 30fps, which made it feel much smoother to play''

KENTARO ON THE BENEFITS OF SATURN PROGRAMMING EXPERIENCE

'consumer division' people. For Saturn games, though, many developers were brought across from the 'arcade division', and in Team Andromeda three of the main people – [art director] Manabu Kusunoki, [system programmer] Hidetoshi Takeshita and [main programmer] Junichi Suto – had always worked on arcade games… until the *Panzer Dragoon* project began. As a result of that, *Panzer Dragoon* was from the start intended as an arcade-style game. The people with the arcade development background had worked on games such as *OutRunners* and *Rail Chase*, which were 3D games that used 2D sprites, so with *Panzer Dragoon* they wanted to try making a 'real' 3D game. I don't think those of us who came from the Mega Drive side of things would have been able to do that so quickly [without the help of the arcade-experienced team members]."

The main challenges Team Andromeda faced during the development of the first *Panzer Dragoon* game were inevitably related to the timing of the project and unfamiliarity with the Saturn hardware. "The schedule we were working to was really tight," Kentaro says. "We actually ended up missing our deadline, which was set as the Japanese launch day of the Saturn hardware. At first we were on the same schedule as the team producing *Clockwork Knight*, but no matter how hard we worked there was no way we were going to be able to meet that deadline, so Sega ended up putting *Clockwork Knight* out first and releasing *Panzer Dragoon* some months later. Sega had wanted a launch line-up of *Clockwork Knight*, *Virtua Fighter* and *Panzer Dragoon*…"

It transpires that Team Andromeda only received prototype Saturn hardware partway through the

development of *Panzer Dragoon*; initially, Andromeda's programmers had to get along by anticipating how the console was likely to perform. Kentaro elaborates: "At the beginning of *Panzer Dragoon*'s development, the Saturn hardware wasn't finalised and we didn't have any prototype consoles to test with. The artists were using Silicon Graphics' SoftImage, and the 3D graphics were programmed on workstations using OpenGL. After a while, we were finally able to send things across to the [debug] Saturn we'd received, but the transition was really difficult for the programmers. Of all of us, I'd say the programmers probably had the most difficult job, because of the volume of 3D work they had to get through. They used both of the Saturn's GPUs in tandem, but I'm not sure how well that really worked out… [laughs]. Early on, the frame rate was terribly low, but eventually they got it up to 20fps."

In spite of those difficulties, inside Team Andromeda (and, for that matter, the rest of Sega) there was complete confidence in the Saturn's supposed ability to win the imminent console war. "Sega was still really strong when Team Andromeda was formed and everyone there was certain that the Saturn would not be beaten by the PlayStation," Kentaro laughs and winces. "Everyone was determined to make sure Sega would win the battle. We thought we'd have no problem making games that were superior to PlayStation games."

Panzer Dragoon's on-rails style of play, propelling the player forwards into the screen while introducing enemy targets from all directions, would seem to have been an obvious evolution of the *Space Harrier* template, but Kentaro believes other games had a greater influence on the direction of the first *Panzer* game: "I suppose [*Space Harrier*] did have some influence on the design of *Panzer Dragoon*, but in terms of games as inspiration, probably Namco's *Starblade*, Nintendo's *Star Fox*, and Taito's 2D shoot-'em-

» Dragoon's distinctive dragons are a world away from the European archetypes we're more familiar with.

» *Panzer Dragoon* was the most technically impressive Saturn title on the Japanese market in March 1995.

ups – particularly *RayForce* – had more of a bearing on how *Panzer* was put together. Team Andromeda was full of shoot-'em-up fans – our programmers were especially into [shmups]. When they got tired of coding, they'd take a break from *Panzer* and play high-score competitions on [Toaplan shmup] *Slap Fight* on the Mega Drive. We also played *Puyo Puyo* a lot during *Panzer*'s development…"

Thanks to its score (penned by a Japanese composer who had produced a series of Krautrock-inspired albums during the Eighties) and its cinematic cut-scenes, *Panzer Dragoon* was able to make an early break into territory outside the confines of traditional games, and in the process an altogether un-game-like world was created. The classic shoot-'em-ups Kentaro mentions certainly helped to shape *Panzer*'s style of play, but he reveals that other factors played equally significant roles: "I think there were all sorts of things that had an influence on *Panzer Dragoon*: particularly anime and films. The concept is completely different, but I'd say the production style of *Star Wars* was definitely influential – you know, how it made an unearthly world appear so real… Also, we were determined to avoid going down the same path as the sci-fi anime that was considered cool at the time – *Gundam*, for example, with its big robots – and we certainly didn't want to follow *Final Fantasy*'s lead, where you'd have characters waving impossibly big swords. Kusunoki was adamant that he didn't want any *Final Fantasy*-style unusual haircuts like [gestures a Cloud-like spike] or purple hair or anything like that," Kentaro laughs. "We wanted to do something closer to reality… with just a normal-looking person as the protagonist."

The *Panzer Dragoon* series' protagonists certainly are quite 'normal-looking', but the overall visual style of the games – the environments and the dragons, in particular – is distinctly odd, although according to Kentaro it wasn't always like that: "The first presentation video we

put together featured a classically European-style green dragon, a pretty typical kind of dragon. However, we later changed the look of the dragon completely because we wanted to make it more sci-fi. Kusunoki decided to push the art direction in a slightly Turkish-looking, Ottoman style, because everyone was already familiar with the more European aesthetics [and he wanted *Panzer Dragoon* to look different from other games]."

Ottoman and science-fiction influences accounted for, *Panzer Dragoon*'s cultural mélange is confused even further by the obviously German theme of the *Panzer Dragoon* games' titles. "I think Futatsugi was a big fan of German names," Kentaro explains. Yukio Futatsugi is also the Team Andromeda member credited with constructing the unique language heard in the *Panzer Dragoon* games – but why did he choose to develop an original language for the games in the first place? "If the games had used Japanese language," Kentaro says, "well, Japanese people at the time didn't really think of their language as a cool thing… And if the characters had been speaking English, the games would have seemed too American, too close to Hollywood. So Futatsugi wanted something completely different and decided to make his own language. Also, there was a famous anime film called *Oneamis No Tsubasa* [English title: *Royal Space Force: The Wings Of Honneamise*] that used its own language, and we all thought that was really excellent…"

Other artistic influences came to the fore in *Panzer Dragoon*, even though the same influences were scaled back in *Zwei*. Specifically, the first game's on-rails, set-route nature of play enabled Team Andromeda to successfully commission a noted composer-producer to create a score that was perfectly in sync with the game's own cadences. Yoshitaka

Little dragons

There were a few non-Saturn *Panzer Dragoon* games released before the turn of the century. In 1996, Sega released a primitive *Panzer Dragoon* game for Tiger Electronics' stillborn R-Zone handheld. Also, a Windows 95 conversion of the first *Panzer Dragoon* game appeared in Japan in March 1997 – steeply priced at 8,800yen (about £50) – featuring a new Replay mode that enabled players to review their performances post-level. Less impressive (but more intriguing) was *Panzer Dragoon Mini*, a Game Gear production released in November 1996. Kentaro Yoshida is quick to absolve Team Andromeda of any responsibility for *Mini*, laughing as he explains that: "No one from Team Andromeda had anything to do with that! It didn't have the atmosphere of a *Panzer Dragoon* game and it wasn't very interesting." *Mini* offers a choice of three colour-coded dragons at the outset (Black, Red and Blue) but features no riders, and while it manages some faked side-on perspectives *Mini* is stripped of the attacking freedom of the Saturn games. Despite its relative lack of gameplay merit and complete disregard for the series' story, *Panzer Dragoon Mini* is something of a rarity and tends to fetch up to 15,000yen (£80) on Japan's Yahoo! Auctions.

"Kusunoki was adamant that he didn't want any Final Fantasy-style unusual haircuts… or purple hair or anything like that"

KENTARO ON TEAM ANDROMEDA'S SEARCH FOR A 'NORMAL-LOOKING' PROTAGONIST

Azuma had already produced half-a-dozen albums of soundtrack-style music during the Eighties, informed by ambient and Germany's Krautrock movement – but *Panzer Dragoon* was his sensational videogame debut. "For the music in *Panzer Dragoon*, we gave Azuma a detailed explanation of the timing of the game's levels," Kentaro explains. "We'd write notes – things like, 'The boss appears 30 seconds on from here' or 'Water appears at this point' – to give him an impression of how each level progressed, from start to finish. That's why the music matches the pace of the game so precisely. We didn't do the same thing with *Zwei*, though; just with the first game. I seem to remember this was because we introduced branching levels in *Zwei*, which would have made that process impossible to replicate…"

Another factor adding to the mystique of *Panzer Dragoon* was its cover art, which was famously supplied by French artist Moebius: "Everyone at Team Andromeda was a fan of Moebius," Kentaro says, "so we asked him to do the artwork for the packaging of *Panzer Dragoon*. For *Panzer Dragoon Zwei*, we just used some computer-generated images – probably because Moebius was too expensive to commission twice [laughs]."

With *Panzer Dragoon* out of the door by March 1995 (four months after the Saturn's Japanese launch), Team Andromeda's attentions turned immediately to the development of two very different new games: an advanced 3D shoot-'em-up in *Panzer Dragoon Zwei*, and an RPG with shooting elements in the form of *Panzer Dragoon Saga*. As Kentaro explains, Team Andromeda expanded to cope with the demands of producing two new games concurrently: "We made *Zwei* and *Panzer Dragoon Saga* at the same time. Team Andromeda was split down the middle, effectively becoming two teams. Kusunoki and Futatsugi led the *Saga* side of things, and quite a few new artists and programmers joined them, while we worked on *Zwei*. We all knew that making an RPG would take more time than producing another shoot-'em-up, so *Panzer Dragoon Zwei* was designed to be released before *Saga*. The original *Panzer Dragoon* took us a year and a few months to develop, but *Zwei* was quite a bit quicker to produce – it didn't even take a full 12 months – because we already had the engine in place from the first game."

Panzer Dragoon was ahead of its time, but in some respects suffered for how adventurous it was: *Panzer Dragoon Zwei*, on the other hand, benefited enormously from the experience Team Andromeda had gained in developing the first game. It also reworked the basics of *Panzer Dragoon*, introducing features such as dragon evolution and multiple paths through levels, in turn adding a layer of depth to the game's formula that is notably missing from the original *Panzer Dragoon*. *Panzer Dragoon Zwei*'s branching levels, Kentaro explains, were the idea of the game's director, Tomohiro Kondo – "He wanted users to be able to enjoy more variety in the game." We ask whether Tomohiro Kondo had anything to do with *OutRunners* – perhaps that's where the inspiration came from? "Kondo was from a 'consumer division' background; only Takeshita had worked on *OutRunners*… But maybe the influence of *OutRun* seeped in a little here," Kentaro laughs.

"As well as the branching courses," Kentaro continues, "in *Zwei* we put a lot of effort into introducing dragons that would develop and evolve. I think that was a really good feature, because it meant that players could have their own individual experiences with the game. I seem to remember Futatsugi came up with the idea of evolving dragons, and he wanted it to feature in both *Saga* and *Zwei*. Another important improvement in *Zwei* was the frame rate. *Panzer Dragoon* was at 20 frames per second most of the time, but the programmers managed to engineer *Zwei* to 30fps, which made the game feel much smoother to play."

But it wasn't just the technical accomplishment of *Zwei* that put it a level up from the original *Panzer Dragoon*: the art direction was also more refined, nicely preparing players for the mesmerising world of *Panzer Dragoon Saga*, which would appear in 1998. "For *Zwei*, Kusunoki wanted to set a slightly darker tone," Kentaro says, "and we were joined by a couple of talented youngsters, one of whom was an artist called Ryuta Ueda, who went on to become the art director on *Jet Set Radio*. He had lots of original ideas that he wanted to see in the *Panzer Dragoon* world, and the more dynamic boss designs in *Zwei* were partly thanks to his abilities."

We ask Kentaro if he can remember how *Panzer Dragoon* and *Panzer Dragoon Zwei* were received by Japan's premier games magazine, *Famitsu*, but he draws a blank: "I really can't remember… I think it got a decent score," he laughs. (For the record, *Panzer Dragoon Zwei* was awarded a highly respectable 35 out of 40 (9, 8, 10, 8) by *Famitsu*'s reviewers back in 1996.) Kentaro is more concerned with the favourable reaction of fellow Japanese developers, though: "Even today, many Japanese developers still play the *Panzer Dragoon* games. Our boss had hoped for more sales than *Panzer Dragoon* achieved – but it can't have performed that badly because we got the go-ahead for *Zwei* and *Saga* straightaway…"

» *Panzer Dragoon*'s seas looked reasonably watery, but *Zwei* did the same trick much better.

A brief history of games featuring dragons

Dragon's Lair (Cinematronics, 1983)
This (in)famous pioneering Laserdisc game got the dragon ball rolling with its casting of Singe as the archenemy of our heroic Dirk. *Dragon's Lair* was inevitably all about the visual impact of FMV at a time when you could normally count sprites using an abacus.

Dragon Slayer (Falcom, 1984)
Nihon Falcom's long and winding *Dragon Slayer* series is an excellent example of dragons being associated with RPGs from the East. It's also a typical example of dragons being cast as the villains of the piece, unlike the *Panzer Dragoon* series in which they act as your friends.

Thanatos (Durell, 1986)
Thanatos instantly impressed upon its release thanks to its huge animated sprites, solid gameplay and the fact you got to play as a bloody big dragon. While you could breath fire on pesky villagers it was far more fun to pick them up in your claws and drop them instead.

Saint Dragon (Jaleco, 1989)
Jaleco's *Saint Dragon* coin-op puts you in control of a metallic dragon in a side-scrolling shoot-'em-up context. It's a bit like Taito's *Syvalion*, which appeared in 1988, in that you're controlling a dragon's head, with a tail following behind (as tails have a habit of doing).

DEVELOPER HIGHLIGHTS

PANZER DRAGOON SAGA
SYSTEM: SATURN
YEAR: 1998

JET SET RADIO (PICTURED)
SYSTEM: DREAMCAST
YEAR: 2000

PANZER DRAGOON ORTA
SYSTEM: XBOX
YEAR: 2002

» The series' cut-scenes were of an appropriate length and frequency, adding to the experience rather than getting in the way.

» Occasion for full 360-degree rotation gave the *Panzer Dragoon* games a unique twist.

The King Of Dragons (Capcom, 1991)
This solid scrolling beat-'em-up pitches a dragon called Gildiss as your archenemy. *The King Of Dragons* also offers a choice of five characters with which to slay the dragon. The game was born in the arcades, but it's also on *Capcom Classics Collection Vol 2* on the PS2/Xbox.

Dragon Force (Sega, 1996)
Dragons don't feature too heavily in this Japanese Saturn RPG, but as the title suggests you do get to use their power to defeat enemy units. The only English-language version was released in the US by Working Designs, who did a typically excellent job with the translation.

Spyro The Dragon (Insomniac, 1998)
Back when 3D platformers/collect-'em-ups were as common as indistinguishable FPSs are today, *Spyro The Dragon* was seen by N64 owners as a *Super Mario 64* rip-off. PlayStation gamers, however, found a charming game with a purple dragon as its unlikely star.

Panzer Dragoon Orta (Smilebit, 2002)
Orta is the ultimate in dragon-piloting 3D shoot-'em-ups. Kentaro Yoshida had left Sega after the disbandment of Team Andromeda, but he returned just to work on this Xbox marvel as a one-off assignment. Dragons have never looked better.

OUT RUN

SETTING YOUR INNER CHILD FREE

- » **PUBLISHER** SEGA
- » **RELEASED:** 1986
- » **GENRE:** ARCADE RACING
- » **FEATURED HARDWARE:** ARCADE
- » **EXPECT TO PAY:** A HEFTY PRICE

HISTORY

It's thirty years ago that I first encountered *Out Run*, but I can still remember it like it was yesterday - such was the impact it had on me.

It's actually fair to say that I first heard, rather than saw *Out Run*. Before I even knew what it was, I was attracted to an impossibly cheerful tune that was incredibly loud and punchy. Poole Quay Amusements always seemed to have its newest games louder than anything else, so you'd be lured in it to find out what all the fuss was about. And so Sega's new game effortlessly enticed me, calling out to me like a siren might do in order to tempt a dumbfounded sailor down to the depths. The tune (which I would later learn to be *Magical Sound Shower*) seemed to go on forever, a wonderfully upbeat and carefree arrangement that got louder and louder as I approached the gigantic sit-down cab.

If the sound was impressive, the visuals were something else entirely. Bright, colourful, and full of exquisite detail they looked utterly mind-blowing to my 13-year-old brain, promising me endless excitement and easily matching the stunning tune (which still hadn't started looping yet). The sensation of speed looked formidable, but unlike many other racing games of the time it also looked like a lot of fun. That was all I needed and I soon deposited my hard-earned pocket money and slid into the seat.

As I chose my musical track and roared off the start line I was giddy with excitement. Playing *Out Run* was everything I thought driving a high-performance car was actually like and as the hydraulic cabinet lurched me from one side of the seat to the other, I squealed with excitement – convinced I was playing the greatest game of all time.

30 years later I'm a little older and a tiny bit wiser and I know that *Out Run* isn't as flawless as I remember it to be. Whenever I hear that summery soundtrack though, or revisit the game on my arcade cabinet, I'm instantly a small child again, staring in wide-eyed amazement at the sheer power of videogames.

158460   LAP   0

STAGE 1

DREAMCAST

A BRIDGE TOO FAR OR A MISUNDERSTOOD MASTERPIECE? WHATEVER YOUR OPINION ON SEGA'S FINAL FORAY INTO THE VIDEOGAME HARDWARE SCENE, THERE'S NO DENYING THAT THE DREAMCAST IS WORTHY OF A SECOND LOOK. JOIN LIFELONG SEGA FANBOY DAMIEN MCFERRAN AS HE TEARFULLY REVISITS ONE OF THE INDUSTRY'S MOST UNDERRATED CONTENDERS

Year released: 1998 (Japan), 1999 (US/Europe)

Original price: £200 (UK)

Buy it now for: £105+

Associated magazines: DC-UK, Official Dreamcast Magazine

Why the Dreamcast was great… Sega's 128-bit console promised arcade-perfect gaming and the ability to go online for under £200. A flood of Sega classics followed and although Sony's PS2 was technically superior it took a while for it to catch up in terms of quality games.

Sega's Dreamcast holds a special place in the history of home videogame entertainment. It was an innovative beast, being the first 128-bit home console to offer online connectivity out of the box and setting the modern trend for sourcing internal components from PC manufacturers. It also proved to be Sega's last entry in the notoriously difficult hardware development race and brought an end to the days when arcade conversions sold consoles. Released in 1998 the ill-fated machine would be culled just three years later by a Sega undergoing seismic internal restructuring that would ultimately see the company emerge as one of the world's leading third-party software publishers.

The Dreamcast enjoyed a somewhat convoluted genesis. Back in the late-Nineties, Sega was still smarting from dismal hardware disasters such as the Mega-CD and 32X, and its Saturn console was losing the 32-bit war against Sony's PlayStation. As is usually the case when companies are against the wall, cracks began to appear inside Sega's corporate architecture. Newly appointed Sega of Japan president Shoichiro Irimajiri decided that the company's internal hardware development division was firing blanks and was determined to look elsewhere for the talent to create a new machine. This was not an entirely new stance; as early as 1995 there were rumours that the Japanese company would team up with aerospace firm Lockheed Martin to develop a new graphics processing unit (GPU), and while this proposed union came to nothing it set the wheels in motion for further excursions abroad in search of new hardware partners.

Around 1997 Irimajiri decided to enlist the services of Tatsuo Yamamoto from IBM Austin to work on a new hardware project. The idea was that the team would operate externally and therefore be unhampered by the internal politics that were pervading Sega's Japanese HQ at the time. Unsurprisingly, when Hideki Sato – head of hardware development at Sega Japan – caught wind of this he was less than happy and made it clear that any technical production should happen within the walls of Sega's Japanese HQ. This resulted in two different teams working in secrecy on two different prototypes in two different parts of the world.

'Black Belt' was the original codename given to the machine being constructed in the US, which was based around 3dfx Interactive's Voodoo 2 graphics technology. The Japanese counterpart was initially known as 'White Belt' (later 'Katana') and made use of NEC/VideoLogic's PowerVR2 chip. Both machines utilised 'off the shelf' central processors, with the American team picking the IBM/Motorola PowerPC 603e and their Japanese competitors favouring Hitachi's SH4. Ironically, despite Irimajiri's bold move of outsourcing development, it was Sato's team that ultimately won in the end with the 'Katana' prototype being selected as the basis
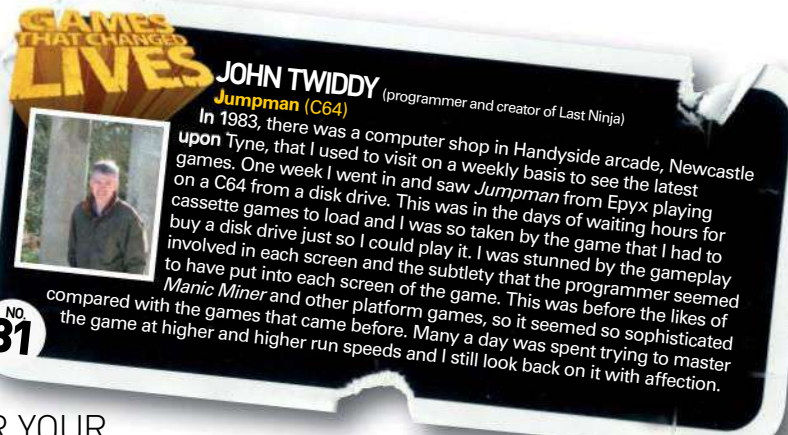
» Yukawa Hidekazu's tortured cameo in the *Shenmue* demo ended up being prophetic in ways Sega possibly didn't imagine.

INSTANT EXPERT
The PAL Dreamcast came with a lowly 33kps modem, but the US machine boasted a faster 56kps variant. Both were later superseded by a broadband adapter.

Sega never officially released the light gun peripheral in the US amid fears about the negative perception of gun crime at the time.

The rather limp UK advertising campaign didn't feature any videogame footage at all, instead relying on seemingly unconnected imagery and the vocal talents of Robbie Williams.

There is no reset button on the machine; instead users must press all the fascia buttons and the start button at the same time to return to the boot menu.

The Hong Kong/Asian edition of the machine did not ship with a modem; in its place was an empty, modem-shaped piece of plastic.

Sega had originally intended to place 8MB of RAM in the console, but it had to up this to 16MB when it found that graphical memory demands were higher than expected.

Shenmue is one of the few Dreamcast games to sell over a million units, yet its commercial performance was well short of expectations and the expensive project failed to actually generate a profit.

In Japan and the US the Dreamcast swirl is orange, but it had to be changed to blue in Europe due to a German company using the exact same logo.

In an attempt to battle the PS2, Sega Europe started bundling a DVD player with the Dreamcast for the same price as Sony's machine. The ploy wasn't a success.

Sega's final Dreamcast game was 2004's *Puyo Pop Fever*.

"SEGA'S DREAMCAST WAS AN INNOVATIVE BEAST THAT CONTINUES TO HOLD A SPECIAL PLACE IN THE HISTORY OF HOME VIDEOGAME ENTERTAINMENT"

DREAMCAST

» Sega Japan's head of hardware development Hideki Sato.

ADVERTS

Now regarded as one of the most inventive and amusing advertising campaigns in videogame history, Sega of Japan's Dreamcast promotions were refreshingly self-deprecating. They featured real-life Sega managing director Yukawa Hidekazu getting in to all kinds of unpleasant situations as he dutifully attempted to make the fledgling console a success. The 30-second advertisements proved that not only did Sega have a sense of humour, but it was also willing to admit it had made mistakes with past hardware and that the Dreamcast represented a fresh start. The campaign was a tremendous success with Japanese audiences and Hidekazu became a star overnight; scenes from the adverts were plastered over the packaging of promotional consoles and the humble managing director even featured in the *What's Shenmue?* demo disc – sitting in a warehouse packed with unsold Dreamcast systems.

» Sega MD Yukawa Hidekazu and president Shoichiro Irimajiri hawk Dreamcasts on launch day.

for the new machine (naturally, rumours abound that Irimajiri's move was merely a bluff in order to give the Japanese hardware division a much-needed kick up the backside). A disgruntled 3dfx promptly sued for breach of contract, claiming that documents had been signed that stated that Sega would use its technology in the proposed 'Black Belt' concept for the new console (the first version of Metropolis Street Racer started development for the 'Black Belt' and Bizarre Creations even had a prototype of this hardware). The two projects, which had been kept top secret up until this point, were made known to the world thanks to 3dfx's lawsuit against both Sega and PowerVR2 manufacturer NEC. The former was reportedly furious about having its dirty washing aired so publicly and the legal impasse would later have to be settled out of court for an undisclosed sum. Needless to say, it marked an inauspicious start for the life of the new super console.

With the technology decided upon, the next step was to give the new project a name. With Sega's stock pitifully low, the company was well aware that any new machine would have to represent a new beginning and distance itself from the tainted public perception created by the poorly performing Saturn. To the Sega management, this meant one thing – completely remove the Sega name from the console and establish a new gaming 'brand' in the same way Sony

"SEGA PROVED HOW SERIOUS IT WAS ABOUT THE DREAMCAST... AS AROUND $500 MILLION WAS EARMARKED FOR THE DREAMCAST WORLDWIDE, WITH ROUGHLY HALF OF THAT FIGURE BEING SPENT ON CREATING THE HARDWARE AND SOFTWARE"
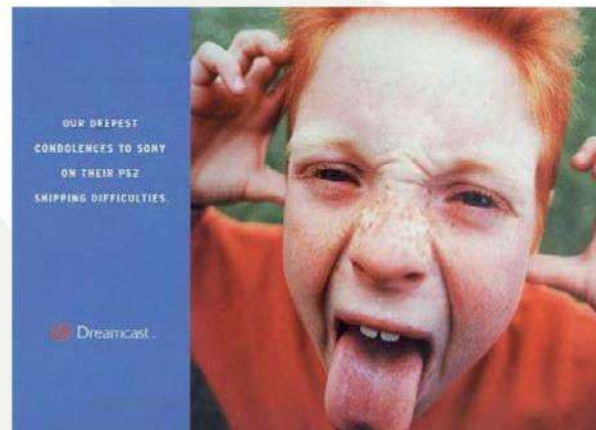

» Capcom provided sterling support for the Dreamcast. If you were a fighting game fan and owned the machine, then you were very happy indeed.

had done with the successful PlayStation. According to reports, over 5,000 different names were considered, with the positive-sounding 'Dreamcast' winning out. A combination of 'dream' and 'cast' - as in the way a magician would cast a spell - this pleasant moniker hinted at the expanded connectivity the system would eventually bring to the home via its online services. Thankfully for fanboys, Irimajiri's management team would later wisely relent and permit the Sega logo to be reinstated to the console's outer casing.

Internally the new system was a marvel of cost cutting, 'off the shelf' componentry – Sega had certainly learnt valuable lessons

from the failure of the Saturn. The Dreamcast's 32-bit predecessor was badly hampered by high production costs and the complex nature of the hardware made it difficult for programmers to get the most out of the system. With Dreamcast, Sega made sure the console was cheap to manufacture by using parts more commonly associated with PCs. The motherboard was a masterpiece of clean, uncluttered design and compatibility, with Microsoft's Windows CE operating system meaning that development would be a potentially pain-free exercise (although it should be noted that in the long term, programmers favoured Sega's own development tools over Microsoft's). In order to keep costs down, the decision was made not to include a DVD drive, as the technology was still quite expensive at the time. Instead, Sega used its own proprietary GD-ROM format, which could store a gigabyte of data. Not including DVD compatibility would later prove to be a costly mistake.

If proof is needed to ascertain how serious Sega was about the new machine, one only has to look at the amount of money involved in designing, creating and marketing the console. Around $500 million was earmarked for the Dreamcast worldwide, with roughly half of that figure being spent on creating the hardware and software. The rest was splashed on promoting the machine all over the globe. Irimajiri, who found fame and fortune in the automotive industry with Honda, jokingly commented a few months before the Japanese release that the figures baffled him – car manufacturers would spend roughly the same amount on creating a new automobile, yet here was Sega throwing millions at the production of a diminutive box that sits under your TV. Nevertheless, Sega's Japanese president was well aware that this was the amount of capital it took to get a new machine on the shelves and into the consciousness of the consumer. The company knew that it would take something special to regain market share from the dominant Sony. "We have the strength of a beaten company," Sega's PR guru Yasushi Akimoto commented at the time. But for all this bravado, the new hardware launch was undoubtedly a huge gamble. The poor performance of the Saturn had pushed Sega into the red, and even before the Dreamcast hit store shelves in Japan the distressed firm had posted a shocking 75 per cent drop in half-year profits. With such a massive amount of money being devoted to doing battle in the console arena once more, the top brass at Sega knew that this could potentially be the last throw of the dice.

Nevertheless, as the console's Japanese launch grew ever closer there was a tangible sense of confidence in the Sega camp. Consumer interest was high and retailers reported that strong pre-orders were expected. However, this optimism was knocked slightly when NEC made the shock announcement that it was struggling with the manufacture of the PowerVR2 chipset. Issues were being encountered when the company mass produced the chip at the required 0.25 micron thickness (with one-in-three processors failing to meet production standards) and this invariably resulted in Sega

» Sega wasn't above taking cheap shots at its rivals, as this American advertisement proves.

COMMUNITY THE BEST DREAMCAST WEBSITES

PlanetDreamcast
www.planetdreamcast.com
Affiliated with the IGN network, this is a great resource for all things Dreamcast related. If you're digging around for some decent software reviews or just want to get yourself acquainted with the history of the console, this should be one of your first ports of call.

DC News
http://dreamcast.dcemu.co.uk
Predictably most modern Dreamcast sites are concerned with emulation, seeing as many high-spec PCs can now comfortably pretend to be Sega's 128-bit machine. This site is an intriguing snapshot of what is possible when amateur coders really put some effort in.

Dreamcast-Scene
www.dreamcast-scene.com
Another site with a heavy 'emu' bias (and we're not talking about that bird Rod Hull used to hang about with). However, there's lots of other interesting content on here too, as well as a nice community that is dedicated to keeping the memory of the machine alive.

Dreamcast Junkyard
http://the-dreamcast-junkyard. blogspot.com
A collection of (often-amusing) blog posts that deal with almost every aspect of the Dreamcast. Entertaining and passionate, it's also one of the few fan sites on the net that still gets regular updates and is well worth looking into.

KEEPING COOL
Due to the raw power contained within the console it was deemed necessary to fit a cooling fan to keep the internal components from overheating. Sega even employed unique heat sinks to keep the main CPU and GPU chips from getting too toasty. This bizarre setup was rumoured to use liquid to carry heat from the chips to the fan using metal pipes via the principle of 'convection circulation'. However, before you excitedly go opening up your PAL machines in order to gaze upon this remarkable feat of technical engineering, it's worth noting that it was sadly only utilised in Japanese launch consoles, and we've only just discovered from an ex-member of Sega's PR that the presence of liquid inside the pipes was actually true. Manufacturing improvements meant that main chips generated less heat and therefore the internal fan proved to be more than enough to keep things running smoothly.

having to halt Japanese pre-orders (which had reached around 80,000 by this stage) and reduce the projected number of units available at launch from 500,000 to 150,000. To make matters worse, several key titles such as *Sega Rally Championship 2* and *Sonic Adventure* were also hit by development delays.

The machine was finally launched in Japan on 27 November 1998 and the 150,000 available units promptly sold out before the day was over. In an eerie precedent to the Saturn launch four years earlier, the only title really worth bothering with on day one was *Virtua Fighter 3: Team Battle*. Unperturbed by the PowerVR2 production fiasco, Sega confidently predicted that it would sell half-a-million units by March 1999. When this target was missed and the news started to filter through that key software titles were failing to sell in the numbers expected (Capcom's stunning *Power Stone* was one high-profile commercial disaster, prompting a public apology from the developer, which wrongfully seemed to assume the end product wasn't up to scratch), those individuals inside the walls of Sega of Japan's boardroom started to worry. Prior to the Western launch the price of the Japanese console was reduced from ¥29,000 (£150) to ¥19,900 (£100), effectively removing all profit from hardware sales. The reduction had the desired effect and units started to sell in larger numbers, although this could have had something to do with the release of Namco's superlative *Soul Calibur*, which when confirmed as coming to Sega's 128-bit console caused a 17 per cent jump in the value of Sega's shares.

As the Dreamcast was struggling to maintain pace in its homeland, Sega's American and European divisions prepared to launch the console in their respective territories. The North American release occurred on 9 September 1999, with the European debut taking place just over a month later. The US launch was an astonishing success with Sega struggling to meet the initial demand for the product. Half-a-million Dreamcast consoles found their way into US homes in the first two weeks alone – something the machine had failed to do in several months in Japan. The company proudly boasted that it made $98 million on software and hardware sales thanks to the 9 September launch; by

anyone's standards it was an amazingly successful introduction and ranks as Sega's most successful hardware launch in the territory. In Europe the figures made for equally encouraging reading; by Christmas 1999 half-a-million units had been sold meaning that Sega Europe was six months ahead of the schedule it had set itself.

Given Sega's strong coin-op heritage, the Dreamcast unsurprisingly saw many arcade conversions during its life span. Shortly before the Japanese launch, Sega announced that it would be replacing its popular Model 3 arcade hardware with a new standard called NAOMI (New Arcade Operation Machine Idea). NAOMI and Dreamcast were essentially the same systems, with the former possessing twice as much RAM and four times as much sound memory. This meant that home conversions were more often than not exact replicas of what was seen in the arcade, and for the first time since the days of the Neo-Geo AES the term 'arcade perfect' actually meant what it said. A slew of Sega-produced arcade ports arrived including *Crazy Taxi*, *Outrigger*, *18 Wheeler*, *F335 Challenge*, *Dynamite Deka 2* and *Virtua Tennis*. Superb support also came from many leading Japanese arcade companies, most notably former Saturn ally Capcom, which not only released some excellent NAOMI titles (*Capcom Vs SNK*, *Marvel Vs Capcom 2* and *Project Justice* to name but three), but also

» *Shenmue* was arguably the most high-profile Dreamcast release and proved to many that the machine was a true next-generation proposition.

DREAMCAST

OTHER VERSIONS WHEN ONE MACHINE ISN'T ENOUGH

Divers 2000 CX-1
Shaped like Sonic's head, this all-in-one solution remains one of the most desirable pieces of Sega hardware. Bundled accessories included a keyboard, rumble pack and headset. It even had teleconference software and a remote for when you wanted to use it as a bog-standard TV.

Hello Kitty
Years before Nintendo cornered the female gamer market with the pink DS, Sega of Japan had been wooing young Japanese schoolgirls with this sickly sweet limited edition Dreamcast. Strictly limited to 2,000 units, many grown men hanker after this effeminate piece of hardware.

R7
The R7 was originally manufactured as a network console in pachinko parlours in Japan. Predictably many units have made it out 'into the wild' and into the hands of Sega collectors. The sleek black exterior reminds us of the Mega Drive, which is certainly no bad thing.

Treamcast
Not strictly an official hardware release, this Chinese modification was sold as a 'portable' solution for Dreamcast fans. Complete with a TFT screen and carry case, it offered incredible power on the move but unsurprisingly didn't trouble the established handhelds of the era.

seemed to release a new 2D fighter on an almost weekly basis, with titles like *Street Fighter III*, *DarkStalkers/Vampire Chronicle* and *Jojo's Bizzare Adventure* proving that Capcom was as serious about standing by the Dreamcast as it had been with the Saturn. Capcom offered another title for Sega's machine, a game that was arguably more important than any of its available fighters. *Resident Evil Code: Veronica* instantly caused a large amount of buzz for Sega's system, mainly down to the fact that the series, until that time had been entirely Sony exclusive. The game was eventually ported to the PlayStation2 and even Nintendo's GameCube as *Code: Veronica X*, but many fans feel the Dreamcast original was far superior.

Unfortunately, consolidating further third-party support wasn't going to be easy. Companies like EA had been burnt by the failure of the Saturn and ignored the Dreamcast throughout its life, choosing instead to stick with the far more profitable PlayStation (it was believed at the time that EA were offered favourable publishing

» Small but perfectly formed – the Dreamcast VMU was a neat idea, but never really made the impact it should have done.

"THE THRILL OF PLAYING CRAZY TAXI IN THE ARCADE KNOWING FULL WELL THAT A PIXEL-PERFECT CONVERSION (AND NOT SOME CUT-DOWN PORT) WAS SET TO ARRIVE ON THE DREAMCAST IS AN EXPERIENCE GAMERS ARE UNLIKELY TO WITNESS AGAIN"

» These NAOMI-based shooters kept the console alive long after Sega had forgotten about it. Clockwise from top left: *Ikaruga, Border Down, Last Hope, Chaos Field, Radilgy, Trizeal.*

terms on the PlayStation2 if they didn't support the Dreamcast). Others adopted a cautious 'wait and see' policy towards the machine, commenting that they would review their stance when solid sales figures came through. Sadly, as positive as the Western launches had been, Sega struggled to keep the momentum going. With Sony's PlayStation 2 looming menacingly on the horizon many gamers decided to stick with their current machine rather than upgrading to the Dreamcast, and as a result interest started to wane. Price cuts, like the one witnessed so early on in Japan, predictably followed in the US and Europe but these failed to be a long-

term solution to the problem.

Invariably, as sales began to diminish, more and more developers chose not to bring their products to the troubled console, and even those that had provided vital support began to lose interest. Namco – an essential partner and the company responsible for the system-defining *Soul Calibur* – dropped Dreamcast support almost as swiftly as it had taken it up. Therefore, throughout the life of the machine it fell to Sega to produce quality software, but while the company was undoubtedly adept at producing engaging coin-op experiences, it struggled to cater for a new audience of gamers that had been weaned on deeper, more feature-packed titles on the PlayStation. Sega's arcade ports were unquestionably arcade perfect, but in the eyes of many critics that was the problem – arcade machines are designed to entertain in short bursts and don't usually stand up to prolonged play within the home. Contemporary reviewers complained of lightweight coin-op ports and even the feature-rich world of *Shenmue* couldn't alter the often-erroneous perception that the Dreamcast was a machine packed with arcade titles that failed to keep your attention for more than a few hours.

Dreamcast's ace in the hole – online connectivity – could have arrested such a sorry slide, but Sega never really managed to exploit this facet to its fullest potential. The company was unforgivably slow in getting it to the consumer and while the actual service was up and running from day one and boasted internet access and email connectivity it was let down by the software getting constantly delayed. When the promise of playing against 'six billion players' (a rather lofty boast made by Sega Europe, which seemingly assumed that everyone on the face of the planet would buy a machine) finally

» Predating the Wii by a fair few years, the motion-sensitive maracas for *Samba De Amigo* brought joy to many a Sega fan – it's a shame the PAL release was so cripplingly limited.

GAMES THAT CHANGED LIVES

WALTER DAY
(Judge and founder of gaming records website Twin Galaxies)
None

The future holds the most significance for me. The evolution of gaming has hardly begun. Technology, bandwidth and interconnectivity will allow anybody and everybody to compete against each other – no matter where they are. Also, the cyberspace, which presently only encompasses the space found on the screen of the gamer's computer, will extend into the real world and the player will become immersed in the cyber environment.

NO. 33

» The proposed Dreamcast Zip drive – sadly it never made it onto the shelves.

came to fruition, it was found to be quite underwhelming due to the slow speed of the bundled modem.

When the PlayStation 2 launched in March 2000 after a series of troublesome delays, it became obvious that the writing was on the wall for Sega's 128-bit challenger. Ironically, the PS2's initial line-up of software was arguably inferior to what was being released on the Dreamcast at the time, but Sony's brand was so strong it sold on the name alone. In the US, the Dreamcast was given a shot in the arm as Sega announced that it would grant a $150 rebate – basically the price of a Dreamcast system – to anyone who signed up to the SegaNet service for two years. Another price cut followed and these two manoeuvres resulted in an astonishing 156 per cent
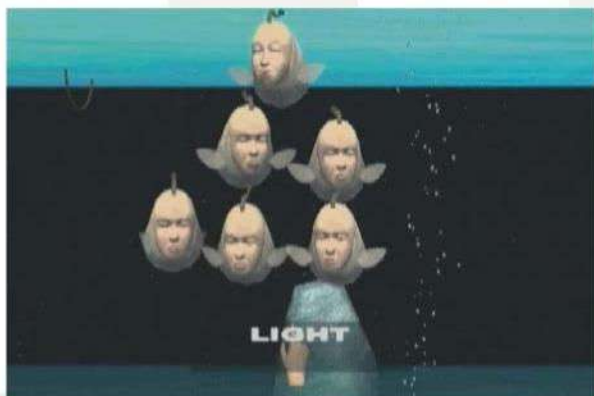
» TThe unique (not to mention disturbing) *Seaman* made use of the Dreamcast microphone.

» The NAOMI arcade hardware was essentially a Dreamcast with more memory

rise in hardware sales. However, it's always worth looking at the bigger picture when quoting numbers like these; the Dreamcast still only held around 15 per cent of the US gaming market, with Sony and Nintendo out in front with 50 per cent and 35 per cent respectively.

Sega was in dire financial straits before the Dreamcast arrived, but its disappointing performance meant the company was in even more trouble. It clearly couldn't continue and although the announcement in 2001 that Sega would be discontinuing Dreamcast production and moving into third-party publishing came as a shock to hardcore fans, most industry experts had been predicting the move for months beforehand. Sega was quick to point out that games were still in development for the Dreamcast, but for all intents and purposes the Japanese firm had taken its eye off the struggling system and was looking very much to the future.

However, the Dreamcast's connection with NAOMI proved to be a crucial lifeline. The arcade system was incredibly popular and Japanese coin-op developers, finding their earnings diminishing as the industry began to shrink, gladly took up the low-cost solution that NAOMI provided. Over the next few years these companies would keep the memory of the Dreamcast alive with a series of shooting titles that, after successful arcade runs were granted small-scale domestic releases. Titles such as *Radilgy*, *Trizeal*, *Under Defeat* and *Trigger Heart Exelica* all found their way onto the system, and G.rev's *Border Down* was so highly sought after that it recently received a welcome reprint. Homebrew shooter *Last Hope* was released in 2007 and is (at the time of writing, at least) the last Dreamcast game to receive moderate media attention.

Pinpointing exactly why the Dreamcast failed is trickier than you might imagine. Was it lack of third-party support? Overreliance on arcade conversions? Poor support of online services that could have set it apart from its rivals? Lack of a DVD drive? The impending release of the PS2? Poor marketing in key territories? The most likely answer is that it was a combination of all these factors, but when dissecting the troubled history of the console it's easy to overlook just how potent a gaming platform it was. The thrill of playing *Crazy Taxi* in the arcade knowing full well that a pixel-perfect conversion (and not some cut-down port) was set to arrive on the Dreamcast is an experience gamers are unlikely to witness again. Rudimentary as it was, online play with a console was nothing short of revolutionary at the time, and Sega basically offered access to the internet for under £200 – something that PCs of that era were asking an awful lot more for. With titles of the calibre of *Rez*, *Jet Set Radio*, *Daytona USA*, *Dead Or Alive 2*, *House Of The Dead 2* and *Skies Of Arcadia*, the Dreamcast was unquestionably heaven for videogamers that appreciated the finer things in life. Sadly, out of those 'six billion' potential players that Sega spoke about, the message only seemed to get through to a lucky few.
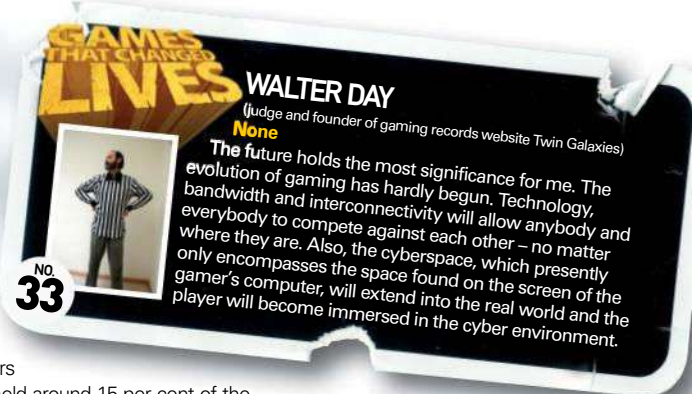
EVERYTHING BUT THE KITCHEN SINK

The range of peripherals available for the Dreamcast is nothing short of staggering. As well as the usual arcade stick controllers and dedicated 'fighting type' joypads there was an updated version of the Saturn's Twin Stick controller (for mecha-fighter *Virtual On*), a steering wheel, rumble pack, keyboard, fishing rod, camera, microphone and motion-sensitive maracas (for *Samba De Amigo*, naturally). Possibly the best-known addition to the Dreamcast stable was the Visual Memory Unit (VMU for short), which stored saved game data and acted like a small console when separated from the Dreamcast itself. Sega had audacious plans for this glorified memory card (as did Sony with its PocketStation), but battery life wasn't perhaps as good as it could have been and anyone who has owned a Dreamcast will be all too aware of the painfully annoying beeping tone a battery-less VMU makes whenever the console is switched on.

» People may have questioned the design of the Dreamcast but it could have been much worse, as these prototypes attest

The Top 25 Dreamcast Games

With the Dreamcast celebrating its ten-year anniversary this year, and **Darran's** recent obsession of owning a complete PAL Dreamcast collection and documenting his progress on YouTube, we felt there was no better time than now to dust down our old Top 25 feature and reveal to you our top 25 Dreamcast games


Toy Commander
■ **DEVELOPER:** NO CLICHÉ ■ **YEAR RELEASED:** 1999
■ **GENRE:** RACING

25 **An early release** for the DC, *Toy Commander*, in the tradition of films like *Toy Story* and games like the excellent *Clockwork Knight*, saw children's toys used in a weird racing combat game. A multitude of vehicular playthings could be driven into battle, from biplanes to jeeps and even tanks, and the missions all played out in various household environments too, à la *Micro Machines*, making for one quirky and fun little DC title.

Dynamite Cop
■ **DEVELOPER:** AM1 ■ **YEAR RELEASED:** 1998
■ **GENRE:** SCROLLING FIGHTER

24 **In terms of** outlandish beat-'em-ups, it doesn't get more peculiar than *Dynamite Cop*. The spiritual sequel to the arcade/Saturn hit *Die Hard Arcade*, *DC*'s overblown slapstick/action gameplay quickly became one of the earliest must-owns for the machine. Set on a luxury cruise liner usurped by a band of 'modern day' pirates, it was your mission to rescue the President's daughter, who's travelling on the vessel, basically using whatever you could get your hands on, be it a fire extinguisher, anti-tank missiles or salt and pepper shakers. A guilty pleasure, and it's B-movie gaming at its best.
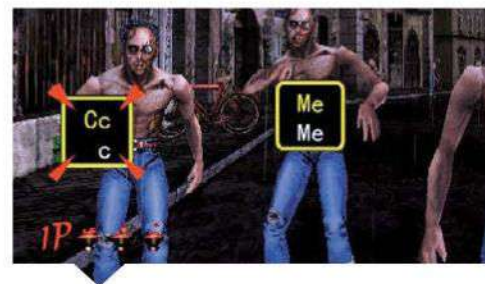
The Typing Of The Dead
■ **DEVELOPER:** WOW ENTERTAINMENT/SMILEBIT
■ **YEAR RELEASED:** 2000 ■ **GENRE:** PUZZLE

23 **The guy who** suggested playing *House Of The Dead 2* using a keyboard, and then suggested simply typing odd combinations of words like 'Santa has some sausages' instead of firing bullets was, in all honesty, a complete genius. This hilarious marriage of a gory arcade lightgun game with a secretary trainer remains one of the quirkiest experiences you can find on the DC, and is wholly worth forking out for the keyboard peripheral alone.

Virtua Tennis 2

■ **DEVELOPER:** HITMAKER
■ **YEAR RELEASED:** 2001 ■ **GENRE:** SPORTS

22 **Boasting the same** stunning gameplay and crisp animation that had served *Virtua Tennis* so well, Sega's sequel ramped things up further by offering a plethora of options. Female players swelled the list to 18 famous stars and the World Tour mode was significantly expanded, while the mini-games were crazier than ever. Along with *Power Stone 2* and *Chu Chu Rocket!*, it remains some of the best fun you can have with four players.

Confidential Mission

■ **DEVELOPER:** HITMAKER
■ **YEAR RELEASED:** 2001 ■ **GENRE:** LIGHTGUN

21 **Many believe that** *Virtua Cop* never found its way to the Dreamcast, but actually it did. *Confidential Mission* is Sega's inaugural 3D lightgun classic in every sense other than name… and the fact that it stars spies instead of cops. But apart from those two pretty significant points, the gameplay, the colour warning target system, the slightly more sedate look and feel to the action and the Justice Shot all remain present and accounted for. This remains one of the best arcade conversions to appear on the Dreamcast, as it actually improves on the arcade version by adding the all-new Agent Academy mode.

Sonic Adventure

■ **DEVELOPER:** SONIC TEAM
■ **YEAR RELEASED:** 1998 ■ **GENRE:** PLATFORMER

20 **It's fair to** say that *Sonic* and 3D don't really work. This, the best 3D *Sonic* game, is over a decade old now, and in 18 years Sega still can't quite get it right. *Sonic Adventure* was the first *Sonic* title to hit the DC and was a great game with exhilarating Sonic bits, interspersed with character-swapping sections, which, while not as good as the Blue Blur's sequences, were enjoyable enough in their own weird way.

Le Mans 24 Hours

■ **DEVELOPER:** INFOGRAMES MELBOURNE HOUSE
■ **YEAR RELEASED:** 1999 ■ **GENRE:** RACING

19 **It was tempting** to pick any one of Sega's better-known racers for this list, but *Le Mans 24 Hours* is just so damned good. Not only does it still manage to look absolutely sensational – especially through a VGA monitor – but it remains the most in-depth and satisfying racer on Sega's machine. Like *Ferrari F355 Challenge* it's a proper sim, but don't let that put you off, as you'll be missing out on an exhilarating experiences.

Space Channel 5

■ **DEVELOPER:** UNITED GAME ARTISTS
■ **YEAR RELEASED:** 1999 ■ **GENRE:** RHYTHM-ACTION

18 **With her shock** of pink hair, skintight clothing and sexy voice, *Space Channel 5's* Ulala easily catapulted herself to the top of the sexiest videogame character list. Developed by Tetsuya Mizuguchi, who would later go on to helm both *Rez* and *Lumines*, it's a wonderful rhythm-action game that sees *Space Channel 5's* top reporter facing off against the cute Morolians due to their desire for galactic conquest. Effectively nothing more than a musical version of *Simon Says*, *Space Channel 5* gets elevated to Dreamcast greatness thanks to its sexy female protagonist, brilliantly catchy tunes and the fact that, despite being ridiculously easy to complete, we still find ourselves constantly returning to it.

Marvel vs Capcom 2

■ **DEVELOPER:** CAPCOM
■ **YEAR RELEASED:** 2000 ■ **GENRE:** BEAT-'EM-UP

17 **The climatic smashing** together of two popular geek worlds – videogames and comic books – was always going to be a dream matchup, and with the quality of a developer like Capcom pulling the strings what *MVC2* represented was the most lavish and over-the-top beat-'em-up ever released. With 56 characters, three-on-three fights, and screen-saturating special moves, it was an utter must for any DC collection.

Samba De Amigo

■ **DEVELOPER:** SONIC TEAM
■ **YEAR RELEASED:** 1999 ■ **GENRE:** RHYTHM-ACTION

16 **Ported from the** original arcade game, *Samba De Amigo* is further proof of just how original and innovative Sega's Dreamcast actually was. Played via a pair of funky maracas and sporting a superb selection of party songs, it's a brilliant rhythm-action title that was bolstered by garish visuals, utterly charming characters and plenty of downloadable content, including lots of arrangements of classic Sega arcade games. Nowadays it sells for well over £100, but to be honest it's worth every penny, especially if you've played the disappointing Wii version.

Sega Marine Fishing

- **DEVELOPER:** WOW ENTERTAINMENT
- **YEAR RELEASED:** 1999 ■ **GENRE:** SPORTS

15 **After getting bored** of catching bass in Sega's first two Dreamcast fishing games, *Marine Fishing* proved itself to be a massive improvement. As well as enabling you to catch a huge variety of different fish, an additional game mode rewarded you with a variety of items and fish that could be used to stock a huge aquarium. Add in a host of excellent mini-games and *Marine Fishing* becomes the best fishing game on any system.

Power Stone 2

- **DEVELOPER:** CAPCOM
- **YEAR RELEASED:** 2000 ■ **GENRE:** BEAT-'EM-UP

14 **While you could** argue that the one-on-one gameplay of *Power Stone* makes for a better-balanced game, it can't hold a candle to the sheer chaos that takes place in the sequel. A real friend destroyer, sit down with three pals and watch the sparks fly. Even if *Power Stone 2* didn't feature one of the best multiplayer modes, we'd still fall in love with it thanks to its impossibly vibrant visuals, great levels and huge number of weapons to unleash on your hapless opponents. Simply unmissable.

Chu Chu Rocket!

- **DEVELOPER:** SONIC TEAM
- **YEAR RELEASED:** 1998 ■ **GENRE:** PLATFORMER

13 *Chu Chu Rocket!* was to the DC what *Tetris* was to the Game Boy. The first online console game for the machine, and given away free to lucky Europeans who signed up and ordered it via Dreamarena, it was a frantic puzzle game by Sonic Team that found the player helping mice avoid cats and escape on a spaceship.

Metropolis Street Racer

- **DEVELOPER:** BIZARRE CREATIONS
- **YEAR RELEASED:** 2000 ■ **GENRE:** RACING

12 **It's somewhat telling** that a decade after its release we're still waiting for a direct high-definition counterpart to this fantastic racer to appear. Amazingly ambitious and offering plenty of clever little touches – weather variations, the kudos system, the transition from night to day, radio stations – *Metropolis Street Racer* is easily the Dreamcast's best racer and is thoroughly deserving of all the high accolades that were bestowed on it back in the day. Now available for under a fiver, it's easily the DC's best non-arcade racer and is an essential part of any Dreamcast owner's collection.

Street Fighter III: 3rd Strike

- **DEVELOPER:** CAPCOM
- **YEAR RELEASED:** 1999 ■ **GENRE:** BEAT-'EM-UP

11 **With *Garou*'s naff** loading times hurting its chances of making our prestigious list, Capcom's *3rd Strike* just manages to steal the 2D one-on-one fighter crown. Still incredible to look at some ten years after its release, it's a wonderful port that becomes even better when played with the DC's excellent arcade stick. With its instantly accessible but amazingly complex gameplay mechanics, exotic assortment of characters and wonderful parrying system, *3rd Strike* remains one of the best 2D fighters of all time.

Ikaruga

- **DEVELOPER:** TREASURE
- **YEAR RELEASED:** 2001 ■ **GENRE:** SHOOT-'EM-UP

10 **It would have** been all too easy to simply fill this top ten with shooters, but we've decided to plump for just one. As much a puzzle game as it is a shooter, *Ikaruga* takes the polarity ideas that Treasure first explored in *Silhouette Mirage* and evolves them into a far more complex and exciting mechanic. Notable for being the first of many games to get released after the DC's commercial death, it's a beautifully arresting game that features a perfectly pitched difficulty level, inventive level design and an array of fantastic bosses. Utterly essential.

Resident Evil: Code Veronica

- **DEVELOPER:** NEXTECH
- **YEAR RELEASED:** 2000 ■ **GENRE:** SURVIVAL HORROR

9 **It's weird to** think that one of the best *Resident Evil* games in the series never actually came from Capcom, but instead from a little-known freelancing development outfit called Nextech. Formerly Gau Entertainment, which was responsible for the awesome *Ranger X* on the Mega Drive, it's no wonder the game is the most cinematic and epic-feeling instalment of the series to date. *CV* was the first instalment to use proper 3D backgrounds instead of pre-rendered images, meaning real-time interaction with objects and a dynamic camera, and to add a first-person mode, leading the way for *Resident Evil 4* in many ways, a title that most regard as the pinnacle of the series.

Jet Set Radio

■ **DEVELOPER:** SMILEBIT
■ **YEAR RELEASED:** 2000 ■ **GENRE:** PLATFORMER

8 *Jet Set Radio* basically had three things to help it stand out from the crowd: J-pop, unique – for its day – cel-shaded graphics, and some unusual gameplay. Playing the leader of a colourful gang of rollerskating graffiti artists, the game involved skating through three levels set around Tokyo and battling with various gangs who are trying to seize control of their turf. To keep these gangs at bay, rather then waiting for them down dark alleys with shanks and chains, you skated around, avoiding cops and gang members as you tagged and re-tagged the streets with your gang motif as if competing in some kind of It's *A Knockout*-style event for urban street artists.

Phantasy Star Online

■ **DEVELOPER:** SONIC TEAM
■ **YEAR RELEASED:** 2000 ■ **GENRE:** RPG

7 **Sega and Sonic** Team broke many boundaries with the innovative *Phantasy Star Online*, and also saddled loyal followers of the cult game with insane telephone bills. Before various cheat devices ruined it, exploring *PSO*'s huge worlds with three friends was one of the most unique gaming experiences that Sega's machine offered. There's something about facing off against that huge dragon before realising that you're out of Scape Dolls that those who weren't there from the beginning just won't understand. Trust us, though: it was truly an amazing experience.

Crazy Taxi

■ **DEVELOPER:** HITMAKER
■ **YEAR RELEASED:** 2000 ■ **GENRE:** RACING

6 *Crazy Taxi* **certainly** lived up to its name: you drove a taxi and the game was crazy. Insane, in fact. You basically played one of four idiot taxi drivers who act like their life depends on ferrying people to places like KFC and the FILA Store in milliseconds. Anyway, the game was great fun in the arcade, and the arcade-perfect conversion that cropped up on the DC a year later in 2000, replete with an extra city to tear around and Crazy Box mini-games, made for essential DC gaming. It was also one of the most successful releases to ever appear on the machine.

Soul Calibur

■ **DEVELOPER:** NAMCO
■ **YEAR RELEASED:** 1999 ■ **GENRE:** BEAT-'EM-UP

5 **A faultless arcade** conversion, *Soul Calibur* was the killer app for Sega's Dreamcast, dethroning even the majesty of its arcade rival *Virtua Fighter*. Featuring visuals that were actually significantly better than the original arcade game, *Soul Calibur* was as perfect a beat-'em-up as you could ask for. Slick, smooth visuals, and great playability that was bolstered by a great cast of varied and surprisingly balanced characters, plus a bevy of bonuses including extra modes and unlockables, made it the must-own fighter for the machine. It still holds up today, and the series has arguably never reached such heights since.

Skies Of Arcadia

■ **DEVELOPER:** OVERWORKS
■ **YEAR RELEASED:** 2000 ■ **GENRE:** RPG

4 **We've lost count** of the hours poured into this beautiful creation from Overworks, but it's well over 100 hours now. Filled with whimsical and often fantastical imagery – the flying pirate ships still amaze – unforgettable characters and an extraordinarily good story that sees a young boy and his friends facing off against gigantic elemental Gigas, *Skies Of Arcadia* has everything you'd expect from a classic RPG. Modeled on the later *Zelda* games, its engaging storyline, extensive use of the DC's VMU and fantastic visuals make it one of the best RPGs of the last decade.

Rez

■ **DEVELOPER:** UNITED GAME ARTISTS
■ **YEAR RELEASED:** 2001 ■ **GENRE:** SHOOT-'EM-UP

3 *Rez* **is one** of the most unique rhythm-action games around, if only because it's far different to anything that's come before or since. With its dreamlike visuals, amazing trance music that slowly builds up in layers as you complete segments of each stage, and simplistic yet challenging gameplay, *Rez* is quite unlike anything else on Sega's system. A simple on-rails shooter at heart, *Rez* nevertheless possesses plenty of challenge under its gorgeous exterior and once again proves just how fertile and imaginative the minds at Sega Japan once were.

The House Of The Dead 2

■ **DEVELOPER:** WOW ENTERTAINMENT
■ **YEAR RELEASED:** 1999 ■ **GENRE:** LIGHTGUN

2 **To this day,** *The House Of The Dead 2* remains the best lightgun game to sprint its way from the arcades and into our warm, cosy homes. The chasm of visual finesse and quality that existed between the first two instalments of Sega's survival-horror series was so large that you couldn't help but fall into its impressiveness. Sega really did pull out all the stops for this sequel, turning round an astonishingly faithful DC conversion in just six months, which boasted an all-new 'original mode' that added weapon and health upgrades hidden around the levels and rewarded all of your subsequent playthroughs.

> **An epic, sprawling adventure, Shenmue was unlike anything gamers had seen before**

Shenmue I and II

DEVELOPER: SEGA-AM2 ■ **YEAR RELEASED:** 1999, 2001 ■ **GENRE:** ADVENTURE

Seriously, did you really think it was going to be anything else? *Shenmue* was the game that the Dreamcast was building up to; a game it's likely the Dreamcast was built for, and the one game to really turn Sega's fortune… well, not quite. *Shenmue* was originally scheduled to appear on the Sega Saturn before its development was carried across to Sega's 128-bit beast.

The first shots of *Shenmue*, then titled *Project Berkeley*, started appearing in issues of *Sega Saturn Magazine*, along with the rumour that Yu Suzuki and his AM2 team were working on an RPG tied in to the *Virtua Fighter* universe and putting Akira in the central role, but the game never materialised. However, on a brand new console, under a new name and with a new story, *Berkeley* became the beautiful butterfly that was *Shenmue*. An epic, sprawling adventure

game that harked back to the classic revenge martial arts flicks of the Eighties and dripped in Sega-isms – such as *Virtua Fighter*-style combat; a loose, arcade-style approach to RPG gaming; and a beautifully realised world that brilliantly mixed Eastern and Western tastes – it was unlike anything gamers had seen before.

At $70 million to develop, *Shenmue* is one of the most expensive games ever created, an achievement that has earned it a place in the *Guinness Book Of World Records*. Similarly, it is also the most ambitious, with Suzuki's plan to split *Shenmue* across 16 chapters over 4-5 games. This unique episodic nature of the game has meant that because of high production costs and less than favourable sales, the game has become a bit of an unfinished symphony and a bone of contention among scores of passionate *Shenmue* fans who are eager to find out how Ryo's story ends.

Predictably, given the large bubble of hype that was surrounding the game, many felt that *Shenmue* failed to live up to its promises. And while it's true that the game has its faults, there really was nothing else like it. An admittedly slow burn to begin with, the true brilliance of *Shenmue* opens up when you venture outside your home and really start to become enmeshed in the story, the characters and the beautifully constructed city of Yokosuka.

Two years later and Yu Suzuki treated the Dreamcast to the next instalment in the series. Featuring three chapters of the story – *Shenmue* only featured one – *Shenmue II* was bigger, more lavish and more epic than the first, but once again, because the game saw only moderate success, it was then that Sega pulled the plug on the Dreamcast and with it the potential future of the series.

Five reasons why we love Shenmue

1 Great scenes In one of *Shenmue*'s most poignant moments, Ryo says goodbye to his Rastafarian hot-dog selling pal, who's leaving him in his time of need to go travelling in America. Cheers, then. Oddly, the goodbye bit and subsequent wave to Tom as he's riding out of Yokosuka on a metal bird happen in the same place, in the exact same cut-scene. Weird.

2 Arcade games If there's one thing *Shenmue* is, it's retro. The game is set in the Eighties, people dress in clothes that you can only buy now in charity shops, and the arcade parlour in the first town of the game features plenty of treasures and classic arcade games, including full versions of *Hang-On* and *Space Harrier*.

3 Lucky Hit If you fancy earning yourself a quick yen to buy yourself a capsule toy of Dural then you can always have a punt on *Shenmue*'s addictive carnival-style mini-game. The game involves dropping a ball down a board littered with pins, and winning rests on the ball dropping into a win zone.

**4 The story** The compelling story of *Shenmue* is what has fans so eager to find out exactly how Ryo's adventure ends. What starts off as a simple tale of vengeance after Ryo's dad is murdered by a mysterious assailant soon spirals into an epic and mystical adventure involving ancient mirrors, kung fu mysticism, destiny and a magical tree.

**5 Battle royale** The combat in *Shenmue* was obviously inspired by *Virtua Fighter*, and early on in *Shenmue*'s development both series were entwined. *Shenmue*'s combat is excellent, and Ryo learns to expand his move set during the course of the game, culminating in an epic 70-man rumble.
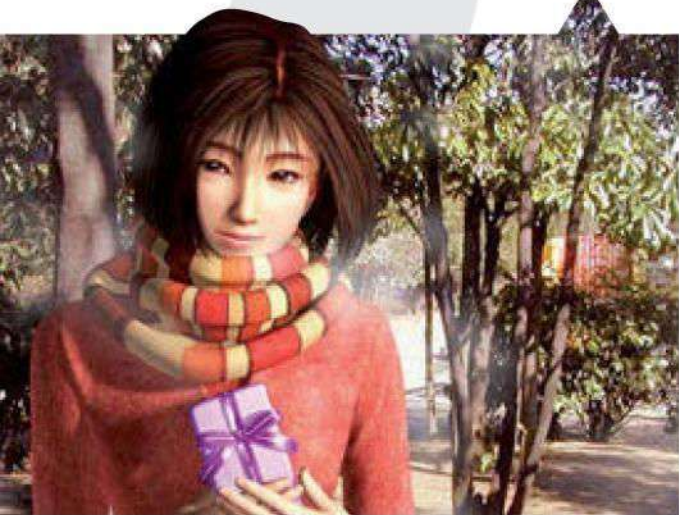
The Making Of...

Shenmue

Record-breaking, technically astounding, but cripplingly expensive and still unfinished. Cole Machin asks why Shenmue continues to command such a following?
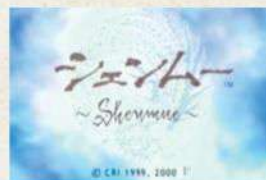
O ver the years there have been many games hailed as triumphs of game engineering, as milestones of progress in the industry and as huge leaps forward in terms of depth and gameplay. Of these titles, few have encountered as many difficulties or been as beloved by its fans as *Shenmue*. Within its development, the series has outlived two consoles, racked up a monumental price tag and created a fan base that has endured nearly a decade since the last release.

As many *Shenmue* fans will already know, the series' beginnings were rooted deeply in another Sega-AM2 series, as a planned RPG expansion of the *Virtua Fighter* universe intended for the Sega Saturn; a genesis that can still be seen not only in the character modelling, but in the source code as well. The brainchild of Yu Suzuki, even in the final release of the game, Ryo's character ID remains 'AKIR', a shortened form of 'Akira'. Although it is difficult to pin down exactly when the game grew beyond these humble roots, it would certainly seem that it came late in the project's two-year-long development for the Saturn or early in the Dreamcast development. In fact, it's hard not to develop a knowing smile looking over early pictures of the character that would become Ryo while comparing them to images of Akira from *Virtua Fighter 2.* Even in the video of a development version of Saturn *Shenmue*, packaged with the Dreamcast *Shenmue II* release, the resemblance to Akira is obvious.

Despite the obvious amount of progress made during this two-year span, the writing on the wall was becoming clear for the Saturn as North American sales lagged, developers struggled with the notoriously difficult setup of the system's hardware, and support from Sega of America began to fail. Work on the Saturn version was halted; it was clear that if the *Shenmue* saga was ever going to see the light of day, it would have to be done on a different console, and Sega had just the console in mind.

Thus was the beginning of *Project Berkley*, the codename used for the early development of *Shenmue* on the still pre-launch Dreamcast. Several videos of these *Project Berkley* tech demos can still be found on the internet. It is interesting to note that the age of these demos marks *Shenmue* out as possibly one of the very first games to begin development for the Dreamcast. The *Project Berkley* moniker remained attached to the project for some time, sticking long enough to appear on the teaser disc attached to the Japanese launch release of *Virtua Fighter 3tb*. This disc was, for most, the first glimpse of AM2's new project.

Although it's tempting to blame much of the cost of *Shenmue*'s development on the difficulties encountered during the Saturn era and the shift in development from the Saturn to the Dreamcast, it would not be entirely accurate. Regardless of the change to the more coder-friendly console, the *Shenmue* project was still no laughing matter. The sheer cost of manpower and organisation for such an undertaking is immense. In fact, when we asked lead systems programmer Tak Hirai about his role in the development of

Shenmue for the Dreamcast, he replied: "I was responsible for managing a team of 87 programmers. I also made final judgements regarding the overall program behaviour of the whole game. Managing this huge team of programmers was a nightmare since it could take more than 14 and a half hours a day just speaking with each person individually. If I only spoke with each programmer for ten minutes, you can see how it would add up."

In terms of his own programming workload alone: "I was in charge of not only constructing the coding environment but also coding a fundamental processing architecture to make system programmers easier to work with. I was also in charge of the character system, rendering pipeline, lighting engine, and also optimising the performance of these systems. I had my hands dirty on playing around with SH4 assembly [programming language] on the Dreamcast to tune up the performance. Small and detailed codes used in the cut-scenes such as physics simulation of phone cords, handcuff chains in the second chapter, and trailing visual effects of the car signals were also done in my spare time. I finally ended up creating around 200 source files out of more than 300 files in total."

To this day it's amazing that the project was completed at any cost. Although it's possible to point to other games released in the same era with a similar scope of story, we've encountered nothing on the same level in terms of the game systems. With such a large team and array of smaller projects involved, development required fantastic organisation of not only the

Who's who

The key players in Ryo's adventure on the streets of Yokosuka

Nozomi Harasaki

Nozomi is a childhood friend of Ryo's, and the game's primary love interest and occasional damsel in distress. She's remained in Japan despite her parents' move to Canada and can usually be found working at her grandmother's flower shop. She has the largest number of unique phone conversations of any character.

Masayuki Fukuhara

Fuku-san is a former student of Iwao Hazuki and has lived in the Hazuki residence since a young age. He is often shown to be somewhat clumsy and socially bumbling, occasionally serving as comic relief. In spite of a few faux pas that make Ryo's life a little harder, he's extremely loyal and it becomes clear that Ryo thinks of him as a brother.

Gui Zhang Chen

Gui Zhang is the son and student of antiquities trader and martial arts master Chen. Although the two have a rocky beginning, Ryo and Gui Zhang form a close, if unconventional, friendship. Their evolving friendship is perhaps the strongest relationship development found in the first game.
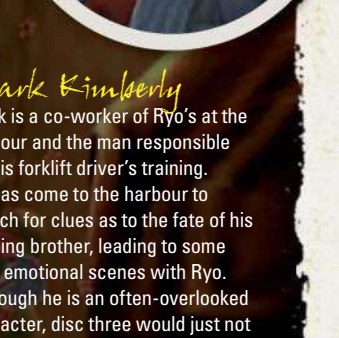
Mark Kimberly

Mark is a co-worker of Ryo's at the harbour and the man responsible for his forklift driver's training. He has come to the harbour to search for clues as to the fate of his missing brother, leading to some very emotional scenes with Ryo. Although he is an often-overlooked character, disc three would just not have been the same without him.

Lan Di

Lan Di, the antagonist of the series, is the man responsible for the death of Iwao Hazuki and the target of Ryo's quest for vengeance. Through the course of the first *Shenmue* he is left a mysterious character. Little is known about him beyond his connection to the Chi You Men, desire for the mirrors and apparent sheer brutality.

available manpower but also of the game's program and the programming environment itself.

Hirai was kind enough to go on to explain the streamlining required: "The programming section was roughly divided into two groups. The first was the system programming team and the other was the game event programming team. In-game events in *Shenmue* were driven by the scripting language. Regarding the program interface, we defined the table of functions associated with in-game event functions so that it wouldn't affect the event program structure whenever we updated the system components. In order to maximise the performance in an environment where up to 87 programmers had to work together, we eased the workflow by downloading pre-compiled object files, which didn't depend on source code, in an individual programmer's local environment. I thought it was ridiculous for 87 programmers to spend time recompiling just because someone modified one bit of source code."

Regardless of the expense of such a development, it was necessary to realise the vision intended for *Shenmue*.

"We took tremendous efforts to implement features that were invisible to the player," continues Hirai. "If the game felt natural to you and nothing stood out as particularly unrealistic, that's because we spent a lot of time to create the game's subtle details despite the very limited hardware horsepower and technology of the time. When it comes to the weather system, it heavily depended on the processing performance, so the most important issue was to optimise the performance. Regarding non-player characters, all 300 characters were specifically positioned in the game field so we didn't have to blindly calculate the collision between
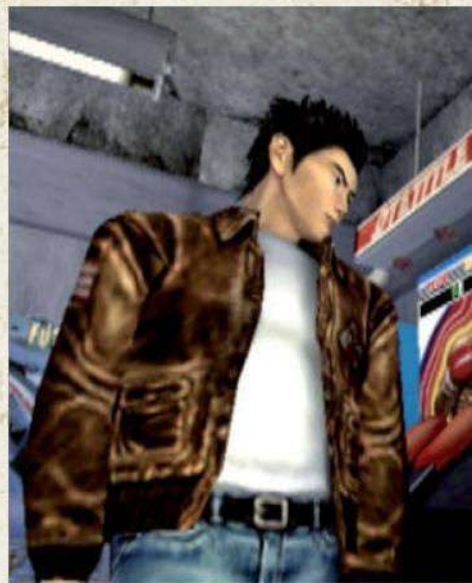
all characters if everything was in sync. However, when a non-player character had to change their walking path to avoid the player, it became increasingly harder to manage what would have been a very simple thing in the real world, such as making an off-track character stand right in front of a door."

It's difficult to explain to a modern gamer just how amazing these features were at the time of *Shenmue*'s release. We can still recall our awe, watching the fish swim in the koi pond or noticing Ryo's shadow falling in different positions depending on the time of day. Although the features may have been, as Hirai says, largely invisible to the player, they certainly did expand upon the game in truly amazing ways. Even if, unlike us, you didn't spend at least a few of Ryo's lunch breaks at work chasing birds that would scatter realistically as you charged towards them.

As the creation of the game progressed, of course some of the

» Love them or hate them, Quick-Time Events were a huge part of the *Shenmue* series.
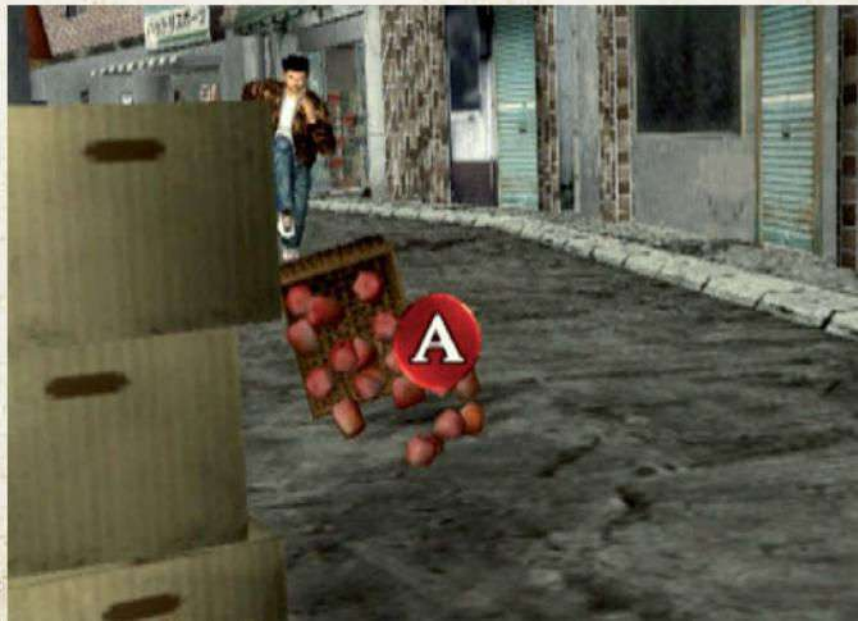
Mini-games

You really can't talk about *Shenmue* without mentioning the sheer volume and playability of its mini-games. Although purpose-built mini-games such as *QTE Title* and darts were not entirely unheard of in RPGs and adventure games of the time, the inclusion of full classic arcade games such as *Space Harrier* and *Hang-On* was a unique touch. The mini-games were a big part of bringing the entire experience together, of giving you the feeling that you could do whatever you liked with Ryo's time. Throughout the existing series, we were treated to a wide variety of mini-games, including *Space Harrier*, *Hang-On*, *After Burner*, *QTE Title 1* and *2*, darts, pool, slots, *Lucky Hit* and a few variations of dice-based games. It's a selection of games that would have done early entries in the party game genre proud.

» The variety of moves was nothing short of astounding.

"We can still recall our awe, watching the fish in the koi pond"

features originally planned for the game did have to be scrapped, even in a game as epic as *Shenmue*. Of these features, the most talked about certainly had to be the ability to ride a bicycle, which was demonstrated in one of the early tech demos. We couldn't resist the urge to ask Hirai just why this feature didn't make the cut and what other features failed to make it into the final version that he may have liked to see on the published discs.

"Actually, I was the first guy who implemented the bike-riding feature," he explains. "This was done at the early stage of the development. We originally intended to begin the game in China, so I made it as a showcase to see how it looked when you rode the bike in a meadow. Another programmer took over that part of the project and worked on the vehicle programming at the end of *Shenmue*. I personally think that we had to cut this feature out from the game because there wasn't a significant enough advantage for the player to ride a bike through the city over simply running around in Yokosuka.

"During the development, there used to be special features, like the player being able to lift up an object like a house and throw it. Fast-forwarding or rewinding the day and night cycles worked great for debugging the game, so I wanted to leave these features in the final product as Easter eggs."

Regardless of what features failed to make an appearance in the published version, the final release suffered from no lack of things to do. Above and beyond the systems discussed earlier, the breadth of little extras is fantastic. You could choose to spend your time collecting toys, drinking sodas, buying crisps, taking care of your stray cat or playing games at the local arcade. It's a funny thing, as truly engrossing as the story of *Shenmue* is, that it is quite linear, allowing only a few hidden scenes without any true branching of the main storyline. That said, the funny thing is that we've never felt at all constrained while playing *Shenmue*, which we believe is a result of these extras. Somehow the ability to waste a day playing darts, to choose dried fish over milk to feed your cat, to satisfy your voyeurism by rummaging through Ryo's drawers, or just to give Ine-san a call during your lunch break all comes together to give you an amazing feeling of freedom. Seemingly, that was no accident.

"We created a lot of innovations never seen before *Shenmue*," says Hirai. "I would say the hardest part of this project was to imagine and create a 'you can do anything' kind of feeling, which did not exist in that era."

Shenmue's impact on the gaming industry was huge, opening a door to a new sub-genre of games that did not previously exist. Even beyond this, it opened our eyes to what could be done, and it raised the bar just a little in terms of the effort and forethought that we demand from game designers.

"I think that *Grand Theft Auto* owes *Shenmue* a lot for its great success, even after coming into the 3D realm," posits Hirai. "Everyone I've met also mentions the detail quality in *Shenmue*. I've been told: 'Don't do so much on the quality to the extent of making a cod in a pond swim smoothly.' Some even said this to me out of fear, since we might make this level of quality an industry standard! It might be simple to say it's about the quality, but I'd rather say it's about 'quality to make it feel real', which is how this project contributed to push the envelope of the gaming industry."

Often the largest impact of a project like *Shenmue* lays in what the creators

themselves take away with them, with the attitudes and ideas they carry into their future projects. As such, we couldn't help but go on and ask what effect the creation of this game had on Hirai personally and his team: "It makes me continuously think and express my thoughts as an engineer, since the project was filled with obstacles and impossible goals. The production took four whole years and I'm proud of myself as the lead programmer to have brought this game into the hands of players, even though we've now graduated through multiple generations of consoles. A lot of team members joined and left the project, and there were so many 'firsts' for us and it was very hard to see how it would all turn out, and how it would be remembered. I owe my accomplishment of four years of lead programming experience to those who worked at my side until the end of the project. Many thanks to all of the team members who supported me."

Despite any impact it may have had, the fate of the series itself was a sad one. The original release cost a colossal $70 million to produce, which is still an astronomical sum and completely unheard of at the time. Dreamcast sales were simply not high enough to support such an expensive game – if every Dreamcast owner at the time of the game's release had purchased a copy, the production would still have lost money. Sales for the original instalment were, however, reasonably strong, at over a million copies worldwide. Unfortunately, the fate of the series

was tightly tied to the Dreamcast, a system that was about to run into some very serious competition from Sony's PlayStation 2. The game's release came just a few short months before the release of the PlayStation 2 in Japan, and only days after in the European and North American markets. It would only be another 16 months before the discontinuation of the Dreamcast in the North American market, which is a difficult place for a console-exclusive trilogy to find itself.

The second instalment was released for the Dreamcast in both Japan and Europe shortly before the system was killed in the European market, meeting reasonable sales. For the North American release, however, the writing was on the wall for its console of choice once again. *Shenmue* had outlived its second console. Demand for the game was still relatively high, however, with many fans importing the European release for play in North America, before the region's official release came almost a full year later for Microsoft's Xbox, which many observers consider a fatal mistake. The previous availability of the European import for the series' established fans greatly reduced the title's sales. Perhaps an even larger issue was the jump between consoles itself. At the time, the Xbox remained an expensive piece of hardware, staving off many Dreamcast owners who may have considered purchasing Microsoft's console in order to continue the series. In addition, Xbox owners who had not previously owned a Dreamcast were left

It's hard to explain just how magical the first trip to Dobuita could feel at the time of *Shenmue*'s release. The number of unique characters, the ability to talk to them all in full audio. The freedom of being able to go to the arcade, or drop in to the Tomato Convenience Store. Being able to explore the town and its shops. It remains, to this day, one of our fondest memories of modern videogaming.

"If every Dreamcast owner had purchased a copy, the production would still have lost money"

» Anyone who has played *Shenmue* is extremely familiar with this particular scene, and with sneaking into Dobuita the back way so you won't get harassed to buy him yet another soda.

» Ryo's morning forklift race goes a long way to both kick the day off and show just how much workplace health and safety regulations have changed over the years.

Shenmue III

At the end of Sony's 2015 E3 press conference, something magical happened. Yu Suzuki came on stage to announce that he was launching a Kickstarter for *Shenmue III*. The internet went wild with the news, and Suzuki's Kickstarter totally smashed its $2 million goal in under nine hours, eventually going on to amass over $6.3 million, a new record for a videogame on the crowdfunding service.

Created by Suzuki's own studio, Ys Net, *Shenmue III* promises to continue the story of Ryo, although it's currently unclear if his adventure will end with the third installment or will continue (it was originally planned across many games). What we do know is that Suzuki has support from many of the original *Shenmue* design team and is aiming for a 2017 release date. Considering the sheer amount of detail crammed into both *Shenmue 1* and *II*, *Shenmue III* has the potential to be the most immersive game in the series yet. Here's hoping that both Suzuki and the game can live up to the sheer amount of expectation that is being put on the both of them.

Flashbacks

By killing off Iwao Hazuki in the opening moments of the game, the story writers were left in the difficult position of making you truly care about his death retroactively. It was done predominantly with sepia-tinged flashbacks, building his character in the early stages of the game, and it certainly worked. You'd need a heart of stone to sit through Iwao's training and feel nothing.

Lost brother

Mark's quest to discover the fate of his lost brother provided more than one great moment in the latter part of *Shenmue*. This scene stands out as the best example. It's hard not to let your heart go out to the fellow as he begins to open up to Ryo regarding his suspicions and fears.

Nozomi in the park

We never fully understood why it was that Nozomi chose to finally tell Ryo about her feelings for him until shortly after the death of his father – it just seems like bad timing. Regardless, by the time you reach this point, you're likely pretty invested in the romantic subplot between the two. It's one of the rare points of the series where you wish that you had just a little more control over what Ryo says.

Sail away

It may be a little obvious, but it's hard to discount *Shenmue*'s final scene when discussing the game's magic moments. It's impossible to stay as implacably stoic as Ryo himself as he sails away from everyone in his life, from everything he knows, to continue his quest.

---

with the second instalment of a story-driven game – a title that picks up in the middle of a story they have not become attached to. All of these factors came together to form a death sentence. Sales were dismal.

Any possible third entry was left in a nearly impossible condition. It had no console and, in the minds of the executives, no market. To continue the series, much of the initial cost and time spent on character modelling and environment building would need to be abandoned and re-created, making any possible climb to profitability for the series a steep and difficult one. Due to the sudden cancellation of the series, conjecture has been widespread for years as to what state the third in the series was left, with some even maintaining that a playable build exists somewhere, however unlikely this may be. It was clear that the Dreamcast would not be continuing far into the future during the production of the second game; Sega had no intentions of building another console to shift development to, even if it felt that it could be made profitable.

All of this logic, however, couldn't kill all hope of playing out just a little more of the *Shenmue* story. We had to ask Hirai if he was aware of any development on a third instalment in any form. This was all he had to say on the subject: "There was none that I know of, but I personally would love to see this saga continued."

Although there have been several fan-based campaigns for a third *Shenmue*, Sega has been stoic regarding the possibility of a third entry, often citing the poor sales of *Shenmue II*, and Sega

officials have been clear that there are currently no plans to continue the series. Regardless of official word, there have been several hoaxes over the years regarding pending announcements from Sega, some of which have included footage from an ill-fated tie-in called *Shenmue Online*: a massively multiplayer conceptualisation of the *Shenmue* universe publicly announced in 2004 as a joint venture between Sega and JC Entertainment.

Development work on *Shenmue Online* ran into difficulties a year after its announcement when JC Entertainment withdrew from the project. Seemingly, Sega did continue production on the title for some time after the split, but little to nothing has been heard about the project for several years. Although it has never been officially announced that development has been cancelled, it seems unlikely that the game will ever see the light of day.

Ryo's next appearance in a videogame happened back in 2010 when he became a playable character in Sumo Digital's *Sonic & Sega All-Stars* racing, a fun *Mario Kart* clone and a fantastic homage to Sega's rich gaming heritage. He was also front and centre in the 2012 sequel, *Sonic & Sega All-Stars Racing Transformed*.

As fun as it was to see Ryo, everyone really wanted him in his own game again. That dream is now coming true thanks to the Kickstarter-funded *Shenmue*, a reveal that fans thought would never happen. It's a testament to both Yu Suzuki, who has doggedly pursued a new *Shenmue* game for years, and the game itself, which has continued to inspire gamers for years.

» Although many gamers preferred the Free Battle system, the QTE fights could be quite cinematic.

» Shenmue's stunning soundtrack is currently available on vinyl courtesy of data-discs.com.

CRAZY TAXI™

15 years after the series first blasted The Offspring into arcades, Retro Gamer flags down Kenji Kanno to chat about Sega's hit driving franchise

Dear reader, allow us to set the scene for you. It is 1:24 on a Saturday morning in Essex, where a man is disembarking from a cab outside his house, visibly shaken. This man has just completed a 12-minute journey home in half that time, thanks to a driver whose skills include an incredible aptitude for paint-scraping near misses and an inability to see red lights. The driver's heavy Glaswegian accent rendered most of his chatter unintelligible to the passenger, and while the passenger shared the sentiments he understood, they are unsuitable to print in a publication like ours. Any normal person leaving this cab would note the number plate and report this menace to the authorities, but the passenger wasn't normal – the passenger was us, and instead we simply thought 'this is probably the closest we'll ever get to being in *Crazy Taxi*'.

For the more law-abiding drivers amongst us this kind of action is a mere fantasy born of M25 tailbacks, and a congested road is where inspiration struck Sega's Kenji Kanno. "I'm a bit of a car enthusiast, and one day I was out driving for fun but I got stuck in traffic," Kanno tells us. "But the other side of the road was completely clear! When I saw that, I thought there must be hundreds of other people thinking like me – if I could drive on the other side of the road, I could have a lot more fun and get there quicker." That fleeting feeling of rebellion against the rules of the road became the basis for *Crazy Taxi*'s death-defying driving action, but it was far from the only influence that Kanno drew from. "At the time, there were a lot of racing games. To be honest, I was quite tired of them," he reveals. "There are a lot of films based on car action. I thought that if I could make a game I was like them, people would get a lot of enjoyment from it."

It's a revelation that is a little surprising given that racing games are a staple of the arcade market, but one that makes sense. Driving scenes in films had also inspired the development of *Driver*, a title that joined *Crazy Taxi* in laying the foundations for the open-world driving subgenre. But where *Driver* had been inspired by the classic car chase movies of the Seventies, *Crazy Taxi* drew on more contemporary influences – not least California's punk rock scene, whose output would prove crucial to the game's development due to Kanno's design philosophy. "Although this is seen as a racing game, I always

» Frequent collisions are a staple of *Crazy Taxi* – the only car you can't flip is your own.

» The downhill leaps that kick off the first game are arguably the most iconic moment in the series.

intended to create it as an action game, and with action games it's all about rhythm and tempo," he explains. "Before making the game, I actually already had the music that I wanted in the game set first, and then had the creators go away and design the game around the music, so that the rhythm would be in sync with the music."

The California spirit didn't just extend to the inclusion of The Offspring and Bad Religion on the soundtrack. Kanno's desire for a bright and hilly environment resulted in an environment based on San Francisco, and while it wasn't an accurate recreation of the city, it did include real-world locations. "I wanted it to have a sense of realism," Kanno recalls, "the best way to get that across, I thought, was to have places that people would relate to." Passengers would frequently ask to be taken to destinations such as Tower Records, KFC and Pizza Hut as well as the game's generic locations such as the stadium, the police station and the mall.

These appealing factors ensured that *Crazy Taxi* quickly became an arcade

staple when it launched in 1999. Players were grabbed by the bright visuals, driving stunts and an attract sequence that literally cried out for players to have some fun with the game. However, they were kept around by the addictive game mechanics. Driving dangerously wasn't just encouraged but rewarded, with players gaining additional tips on their fares for near misses, drifts and jumps. Although the customer's destination would remain a secret until they were picked up, coloured icons above their heads would alert you to the distance and difficulty of their desired journey – important, because a quick journey rewards players with additional seconds on the clock.

Having experienced success with the coin-op, Sega was keen to get the game onto the Dreamcast quickly. Although the title shipped on the NAOMI arcade board – essentially, a modified Dreamcast – the conversion still posed some problems due to the size of the city environment. In the arcade, the

» Kanno is an enthusiastic interviewee, clearly pleased that *Crazy Taxi* retains its strong appeal.

EXTREME EMPLOYMENT

Crazy Taxi wasn't the only game to intensify a mundane job

BURGERTIME
■ ARCADE ■ 1982

Poor old Peter Pepper puts up with some nightmarish working conditions in Data East's arcade classic. The poor chef is trying to put together burgers while being chased by anthropomorphic eggs, hot dogs and pickles. We don't imagine staff at McDonald's are forced to put up with murderous food...
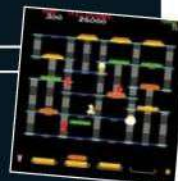
POWER DIGGERZ
■ PLAYSTATION ■ 2000

JCB drivers already have a sweet deal thanks to the awesome power of their vehicles, but this overlooked gem made construction equipment even more fun than normal. Destroying cars, scooping turtles from swimming pools, serving 200 litres of curry onto giant plates – Taito's game lets you do all this and more.

SEGAGAGA
■ DREAMCAST ■ 2001

Sega's Japan-only RPG lets you take charge of Sega in the year 2025, by which time it has become just a tad different. Developers are locked behind gigantic blast doors producing games like *Final Pharmacy VIII*, and are occasionally required to blast into space to fend off attacking Sega hardware...

PHOENIX WRIGHT: ACE ATTORNEY
■ GAME BOY ADVANCE ■ 2001

Being a lawyer might not sound like the most exciting thing in the world, but Phoenix Wright's cases are full of shouting and table-banging – and that's before any of the game's spirit mediums get involved. At one point, you'll even need to bring a parrot to the stand for cross-examination.

TRAUMA CENTER: UNDER THE KNIFE
■ NINTENDO DS ■ 2005

Extraordinary healing powers gained from the Greek god Asclepius are only the start of the weirdness in this surgery simulator from Atlus. The plot sees you taking on a man-made disease known as GUILT, being spread by an organisation of terrorists whose leader is 121 years old.

» *Crazy Taxi*'s sense of humour even extends under the ocean, where snorkel-wearing passengers await.

open driving environment wasn't such a large issue because the NAOMI had the benefit of loading the game from cartridge, and twice as much RAM as the home system. To overcome the Dreamcast's limitations, Kanno's team had to program a method of streaming city data from the disc during gameplay. It proved to be worth the effort, as the Dreamcast conversion proves virtually indistinguishable from the original arcade game.

As well as being a practically perfect port, the Dreamcast version of *Crazy Taxi* included additional features. Most prominent was the Original Mode, which allowed players to enjoy a brand new city with a twisting street section and a railway. There was also the Crazy Box Mode, a selection of driving mini-games, in which taxis were used to pop balloons and knock down bowling pins. Kanno asked the team to think independently about mini-game concepts outside of work, before coming together in the office to select the ideas that would be used in the game. "We looked at different elements of the game that could be scored against, like drifting or dashing," recalls the director, highlighting the mode's role in teach players advanced techniques. "It was something that people could play and have fun with, but also use as practice."

» Drifting is a speedy way to negotiate the 90-degree corners in downtown areas.

» A good job will reward you with more money and a five-second time bonus.
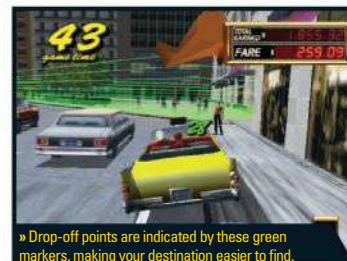
» Drop-off points are indicated by these green markers, making your destination easier to find.

aunching at the beginning of 2000, the Dreamcast version of *Crazy Taxi* received a massively enthusiastic response from the press, gaining acclaim for the quality of its conversion. Surprisingly, it's acclaim that Kanno himself had been unaware of. "I didn't actually know that it was regarded that way," he responded when asked for his thoughts on the game's reception. "I think the key reason that it succeeded is because it offered something that other games at the time weren't offering. Maybe it's down to who is giving that feedback." The public

responded with equal enthusiasm, purchasing over 1 million copies and providing the Dreamcast with an early highlight in its lifespan.

But financial realities had hit Sega hard and just a year later the company announced its exit from the hardware business and made plans for its games to appear on the consoles of its former competitors. Acclaim licensed the game and developed PlayStation 2 and GameCube conversions in-house, while Sega contracted the development of the PC version to Strangelite. None of the conversions had the critical impact of the Dreamcast release, though the PlayStation 2 version eventually outsold its predecessor. Free of all the conversion work, Kanno's team at Hitmaker had time to produce something far more exciting – a *Crazy Taxi* sequel.

Despite its hardware woes, Sega never planned *Crazy Taxi 2* as anything other than a

Dreamcast game. The basic formula of driving recklessly to get customers to their destinations hadn't changed, but the setting had as *Crazy Taxi 2* introduced four new characters and two new maps. Based on New York, these maps were dense urban environments with fewer natural hills, with roads bordered in by skyscrapers. This design played into the team's plan to give the player a new kind of control. "With *Crazy Taxi*, it was basically a lane- ▶

"I wanted it to have a sense of realism. The best way was to have places people relate to"
Kenji Kanno
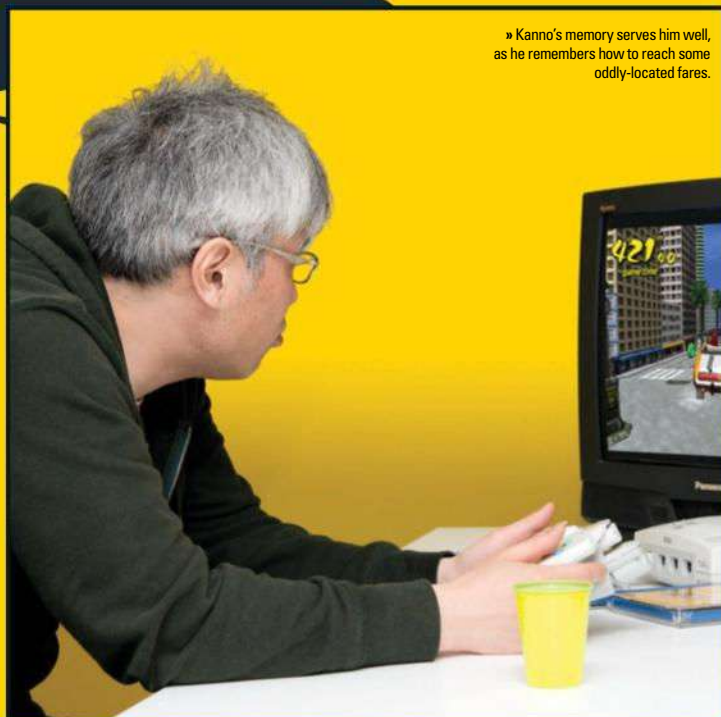
▶ based game and you could only avoid by going left or right, so it was very much a 2D game in that sense," Kanno explains. "With *Crazy Taxi 2*, we wanted to bring a bit more of a 3D element into the game, and the Crazy Hop is the result of what we were trying to achieve."

The Crazy Hop was a new ability introduced in *Crazy Taxi 2* which allowed taxis to jump. Though Around Apple and Small Apple didn't have a lot of hills, they made up for that with overpasses and rooftop shortcuts, allowing players with quick reactions to shave seconds off their times. What's more, the new mini-games in the Crazy Pyramid Mode made heavy use of the new addition, with jumping-based games such as Crazy Stairs. Another new addition was passenger groups. Up to four customers were now able to board your taxi, each with different destinations in close proximity to one another. Time limits for groups were noticeably strict, but expert players could rack up crazy money for taking them – as well as awarding larger fares, groups gave a multiplier on tips for each passenger.

While *Crazy Taxi 2* launched to good reviews in the middle of 2001, it didn't achieve the same level of praise as its predecessor. Critics praised the retention of the original game's manic action and the inclusion of more music from The Offspring, but felt that the game didn't do enough to improve over its predecessor, thanks to its near-identical visuals and minor gameplay enhancements. In fact, the most major change was the most controversial. "Some people find it difficult, some people find it really enjoyable, but we see it as a mixed reception," explains Kanno, talking about the Crazy Hop. For purists, the thrill of dodging traffic was diminished by the ease of leaping over it – you'd receive tips regardless – but proponents of the mechanic enjoyed the additional shortcuts it provided. Despite the mixed reception, the Crazy Hop would carry over into the last of the major *Crazy Taxi* releases.

Crazy Taxi 3 was one of Sega's early exclusives for Microsoft's Xbox. At

» As well as a new city, *Crazy Taxi 2* brought a new set of cabbies – here's Slash in action.

» The environments are nice, but the tall buildings obscure Sega's blue skies.

the time it was a surprising choice of platform – it's easy to forget that the Xbox was something of an unknown quantity even as late as 2002, thanks to Microsoft's lack of experience in the console market. What's more, *Crazy Taxi* had already sold well on the PlayStation 2. However, Kanno tells us that it was the American company's enthusiasm for the series that influenced the decision. "We had a chance to talk to Microsoft about *Crazy Taxi* and they were really keen, they had a lot of love to show for *Crazy Taxi*. It was all about love!"

Early plans for *Crazy Taxi 3* were more ambitious than for *Crazy Taxi 2*. Early interviews with Hisao Oguchi, who had served as producer on the first two games, mentioned that multiplayer had been experimented with but ultimately abandoned. Other plans included the addition of day and night cycles, so that customers and destinations would change as the day went on. The team undertook location scouting, even returning to previously used cities like New York. "I didn't want to go," Kanno

explains of the trip, "but the designer did go on a really tough schedule. Exactly a week before 9/11 he was in the building. In that sense, it's a location scout that left an impression. It's a bit eerie, isn't it?"

Unfortunately, these plans would not come to fruition. "As you know, in development we always have to battle between shipping what we really want to do, and the time that we realistically have set to complete the challenge," begins Kanno's response when asked about the scrapped features. "We didn't have an infinite amount of time to do everything and it's true that there were certain things that we wanted to do, but we couldn't complete within the time that we had." Ironically, these time constraints would ensure that *Crazy Taxi 3* was the ▶

> ❝ **It's true that there were certain things we wanted to do, but we couldn't within the time we had** ❞
>
> Kenji Kanno

» Picking up multiple passengers is a risk, but success is highly rewarding.

RETURN JOURNEY

A look back at what Kenji Kanno did before Crazy Taxi

JURASSIC PARK

■ Sega's excellent lightgun shooter was Kanji Kanno's debut as a game director. While it didn't utilise the 3D graphics technology of the time, *Jurassic Park* proved that 2D games could still impress players, thanks to memorable attacks from a herd of stampeding triceratops and an absolutely enormous T-Rex.

FUNKY HEAD BOXERS

■ This boxing game utilised Sega's budget ST-V arcade board. The Saturn-based hardware wasn't the best at displaying complex 3D characters, so the team utilised a different approach – box-headed pugilists with detailed facial textures, who reacted to blows with some bizarre expressions.

TOP SKATER

■ This arcade cabinet is memorable for its controller, which allowed players to play with their feet. Players needed to complete courses without time running out, collecting time bonus tokens and performing tricks along the way. Like *Crazy Taxi*, it features a licensed punk rock soundtrack – this time courtesy of Pennywise.

» *Crazy Taxi*'s director takes great care in explaining the careful design behind the series' reckless driving.

▶ most conservative of the trilogy in design terms.

The final version ended up serving as a kind of greatest hits package, albeit one with significant additions. Two maps from previous games returned with updates – *Crazy Taxi*'s arcade map West Coast came back with some new areas designed to take advantage of the Crazy Hop, alongside *Crazy Taxi 2*'s Small Apple, now set at night. *Crazy Taxi 3*'s sole original map was Glitter Oasis, a Las Vegas-themed map set at night to allow the bright lights to take centre stage, with the outskirts including a canyon area. Four more new characters made their debut alongside the eight existing drivers, and another set of mini-games was on offer in the Crazy X Mode.

Crazy Taxi 3 arrived in the middle of 2002 to a reasonably positive but undeniably underwhelming critical response. While critics still generally enjoyed the game's core mechanics, the consensus was that the game just didn't bring enough new content to the table. The game also struggled on a technical level, with reviewers complaining of noticeable draw distance problems and prominent slowdown, particularly in the flagship Glitter Oasis stage. The 2004 PC conversion, once again handled by Strangelite, fared little better. However, *Crazy Taxi 3* did manage to make a return journey to the arcade. Sega adopted the Xbox-based Chihiro board for arcade releases in 2003, and Kanno saw an unusual home-to-arcade conversion as the natural choice. "It seemed to be a natural fit, a case of 'hey, if we release this content, we'll have happy consumers'," he reflects.

In 2003, THQ acquired the rights to publish a Game Boy Advance version of Crazy Taxi. Developed by Graphic State Games, Crazy Taxi: Catch A Ride proved to be an awkward fit for the handheld system. Much like other attempts at 3D driving games on the system, Crazy Taxi suffered from blocky visuals and a poor frame rate and the game received a critical battering when it launched. Later that year, the series managed to make the news thanks to a patent infringement lawsuit. Sega sued Electronic Arts, Fox Interactive and Radical Entertainment over The Simpsons: Road Rage, a 2001 release that had been noted for its extreme similarity to Crazy Taxi. The lawsuit was settled out of court for an undisclosed sum soon after being filed.

In recent years, Crazy Taxi has been employed primarily as a nostalgic capacity. 2007's Crazy Taxi: Fare Wars was a PSP compilation of the first two games. While the game suffered the loss of licensed shops and music, it did benefit from the first-time inclusion of multiplayer modes. The original Crazy Taxi later found its way to Xbox 360, PlayStation 3 and PC, again missing its licensed aspects. These versions did at
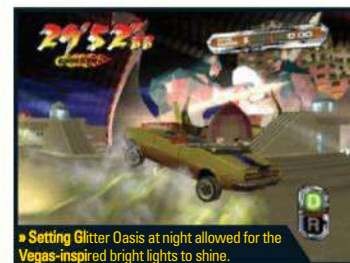
» **Setting Gl**itter Oasis at night allowed for the **Vegas-inspi**red bright lights to shine.
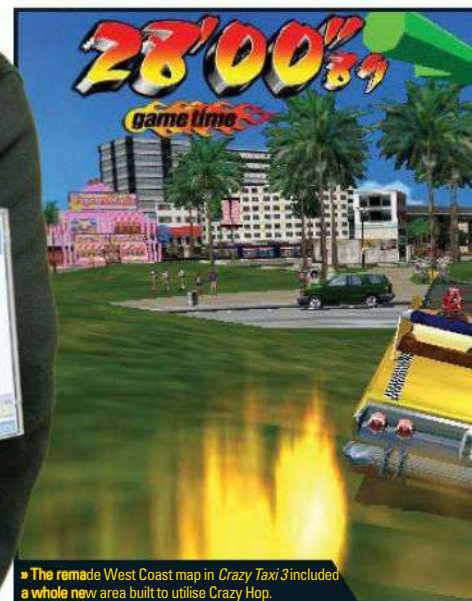
» **The rema**de West Coast map in *Crazy Taxi 3* included **a whole ne**w area built to utilise Crazy Hop.

CRAZY PYRAMID

Some of the best mini-games the series has to offer

CRAZY SPECIAL
■ *Crazy Taxi 2*'s final challenge is a nightmare – you must visit every drop-off point in Small Apple with a useless guide arrow!

CRAZY ZIGZAG 2
■ One of the tougher mini-games – seven passengers, 40 seconds and one narrow road in the middle of the ocean. Don't get wet!

CRAZY ARCHES
■ A right royal pain, this game requires careful use of the Crazy Hop to leap from arch to arch. Repeated drowning is probable.

CRAZY BOWLING
■ Drift into the pins to score seven consecutive strikes. It sounds simple but this mini-game proves deceptively tough.

CRAZY PARKING
■ Battle your way to the top of a packed multi-storey car park! The tight time limit here is a killer.

CRAZY STAIRS
■ Easy to explain, hard to master – hop up a series of ascending steps in order to reach the goal. Expect plummeting.

CRAZY BALLOONS
■ A classic, in which you chase balloons around and pop them. Another game that made multiple appearances.

CRAZY HURDLES
■ This one's pretty easy, you just need to leap over the hurdles and reach the finish line. This one's good for score competitions.

CRAZY GOLF
■ You need to use Crazy Hop to drive a ball as far as possible – an easy but enjoyable task from *Crazy Taxi 2*.

CRAZY JUMP
■ A series staple appearing in all three games, Crazy Jump sees you hurling your cab off a ramp as far as possible.

least include an option to use custom soundtracks, for those desperately missing their Bad Religion fix. Versions for iOS and Android restored the soundtrack, but not the shopping.

The newest *Crazy Taxi* release to hit the market is *Crazy Taxi: City Rush*, a free-to-play mobile game which deftly combines the spirit of Sega's series with the runner format as popularised by games like *Temple Run*. "*Crazy Taxi* is in essence a casual game, but it's got this charm and allure that makes it really addictive," says Kanno of the decision to take the series in this brand new direction. "Because mobile is so widespread now, we thought that would be a perfect platform to go onto." The conversion has been handled by Hardlight, a UK-based Sega studio that specialises in games for mobile platforms – a decision which

Kanno attributes to the game's greater popularity in the West.

While the game is unmistakably a part of the runner genre, it does contain some of *Crazy Taxi*'s signature mechanics – for example, players are still awarded Crazy Through combos for dodging between vehicles. But mechanical authenticity hasn't been the key for Kanno, who is more concerned with retaining the spirit of the series. As he puts it, "it's not really about the techniques, the technicalities or the mechanics, it's more about 'does it feel like a *Crazy Taxi*?'" In that regard, the game delivers, with original characters like Gena and BD Joe even making cameo appearances. *Crazy Taxi: City Rush* also introduces new gameplay elements, such as upgradeable taxis.

Such advances seem core to Kanno's outlook on games, as he is firmly focused on the future. This is a trait ▶

THE KNOWLEDGE

A cabbie's guide to picking up crazy money

BRING TERROR TO THE MALL BY DRIVING THROUGH IT

DON'T WAIT FOR THE END OF THE ROAD TO DO A U-TURN!

BEING ON THE ROOF IS TOTALLY PUNK ROCK, RIGHT?

KFC SHORTCUT – ANOTHER CUSTOMER YOU MIGHT MISS DOWN HERE

COOL GRANDMA, JUST CHILLIN' ON THE ROOF

MOTEL SHORTCUT – SMASH THOSE BOXES!

MULTI-STOREY CAR PARK – AWESOME JUMP OPPORTUNITY!

RESCUE THIS LADY FROM HER BROKEN-DOWN CAR!

CHEEKY SHORTCUT – YOUR ONLY CHANCE TO CHANGE LANES HERE

WHAT'S THIS GUY DOING UNDERWATER?

> **"For me, as a creator, I'm always thinking about what's next "**
> Kenji Kanno

most evident when he's asked about what achievements he takes pride in. "To be honest, throughout *Crazy Taxi 1*, *2* and *3* I don't have anything that I'm particularly proud of," is the surprising response. "You probably interview a lot of people and for me, it's great that you've played our game and you've really enjoyed it," he continues, "but for me, as a creator, I'm always thinking about what's next."

Even so, *Crazy Taxi* has left its mark on gaming history. Well over a decade after the first arcade-goer was challenged to make some crazy money,

the trademark action of the series still has an appeal that resurfaces any time a player sees a dangerous driver, just as it did for us. And, as his final anecdote reveals, it's an appeal that even Kanno has experienced first-hand: "I was in Las Vegas once, on holiday, and this taxi driver was just driving at breakneck speed to get me to my destination. And then, just as I was getting out of the cab, he said 'I'm *Crazy Taxi*!' but he didn't even know who I was! He was just some crazy taxi driver!" We can only hope he was awarded the customary 'Speedy' bonus.⭐

» While the game design remained faithful, the GBA lacked the power to faithfully recreate *Crazy Taxi*.

» Leaping over traffic remains a key part of the gameplay experience in *Crazy Taxi: City Rush*.
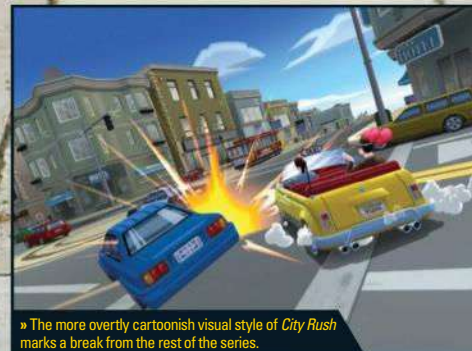
» The more overtly cartoonish visual style of *City Rush* marks a break from the rest of the series.

20 SEGA GAMES

YOU'VE **NEVER** PLAYED

We look at some of the best Sega games that failed to get the attention they deserved. If you miss the glory days of the developer, then here are 20 games that will remind you why to be this good it takes Sega

Fantasy Zone: The Maze

Format: Master System
Year: 1987
Publisher: Sega
Developer: In-house

If you're expecting a shooter like previous games in the series then prepare for disappointment. *Fantasy Zone: The Maze* (or *Opa Opa* as it was known in Japan) is actually a surprisingly enjoyable *Pac-Man* clone. Set against the backdrops of popular locations from the Fantasy Zone, you must collect all the onscreen coins while avoiding enemies. The nice touch here though is that said enemies spawn from an ever-filling portal and if you don't fly over it, more monsters are added to the fray. It's quirky but highly enjoyable all the same.

Cosmic Smash

Format: Dreamcast
Year: 2001
Publisher: Sega
Developer: Sega Rosso

Simple but stylish is the best way to sum up this Dreamcast arcade conversion. Playing like a cross between *Squash* and *Breakout*, *Cosmic Smash* featured *Tron*-like visuals and mesmerisingly hypnotic gameplay. You're essentially placed in a futuristic squash court and must remove a set amount of blocks, initially with 80 seconds on the clock, before you can move to the next stage. Full of multiple routes, excellent music and a surprisingly complex two-button system, *Cosmic Smash* is a must-play game, which passed many people by due to it only appearing in Japan.

Alien 3: The Gun

Format: Arcade
Year: 1993
Publisher: Sega
Developer: In-house

Making an arcade game based on the plot of *Alien 3* sounds like a terrible idea. Sega thought so as well, so it decided to instead make up its own story. It's very loosely tied into Paul Fincher's film, but the plot's not important. What is important is that you get to spray bullets into all sorts of nasty xenomorphs as you make your way through gloomy corridors and scary open spaces. There's a nice variety to the different aliens you encounter and they often attack in swarms, meaning you'll ideally want to play through with a friend. It may have a colour palette as gloomy as Fincher's movie, but it's great fun to play.

Pepenga Pengo

Format: Mega Drive
Year: 1995
Publisher: Sega
Developer: In-house

Pepenga Pengo was only released in Japan, meaning many Mega Drive owners sadly won't have experienced it. This is a pity as it's an excellent little puzzler that massively improves on the arcade original. *Pepenga Pengo* introduces power-ups, cute bosses, and a new and improved co-operative mode (the original had two players taking alternate turns) that makes clearing later stages far easier. Spread across ten worlds, *Pepenga Pengo* is an excellent update that greatly improves on the original game. It also features the original arcade game and an excellent *Bomberman*-style battle mode that can support up to four players.

Panzer Dragoon Saga

Format: Saturn
Year: 1996
Publisher: Sega
Developer: Team Andromeda

While many will have heard of *Saga*, we'd bet that you've not experienced it. Released late in the Saturn's lifetime, it limped into PAL land as the Saturn was in its final death throes, and as a result received an extremely limited print run. The same thing happened Stateside, meaning English copies now tend to command insane prices. We'd support shelling out though as *Panzer Dragoon Saga* is a staggeringly good game. Unlike the first two games in the series, *Panzer Dragoon Saga* is an RPG, and consists of sections where you're flying your dragon or running around as protagonist Edge. The combat uses a stylish battle system that features dramatic sweeping camera angles and revolves around three action gauges. Experience points are also earned, which allow your dragon to morph into a number of different forms. With the recent revelation that the original source code has been lost, we'd suggest you seek out a Saturn original rather than wait for a re-release that may never come.

As well as Nintendo, Sega was also in talks with Sony to collaborate on a new console. *Virtua Fighter* is also said to have played a big factor in convincing Sony to leverage the architecture of the **PlayStation towards 3D technology.**

The name Sega stands for SErvice GAmes, and the company was originally based in Honolulu, Hawaii.

The famous Sega load up voice chant debuted in *Sonic The Hedgehog*, and was only created by Sonic Team to fill space on the rom.

Shenmue and *Shenmue 2* are two of the most expensive games Sega ever made, with a combined cost of over $100 million.

Sega created the first ever stereoscopic 3D video game, *SubRoc-3D*, which was released in arcades in 1982.

Gunvalkyrie

Format: Xbox
Year: 2002
Publisher: Sega
Developer: Smilebit

Although it's a highly westernised console, there were plenty of hidden gems on Microsoft's Xbox. One such example is the highly underrated *Gunvalkyrie* from Smilebit, which was originally planned for release on Sega's Dreamcast. It's worth noting though that like *P.N.03* (another misunderstood gem from around the same time period) *Gunvalkyrie* is certainly not an easy game to master. This is mainly due to its complex control system that has the left stick controlling movement, while the right handles aiming. Clicking the left stick lets you boost in the air for a short period of time, while clicking the right allows you to make useful quick-turns. It feels clunky at first and horribly awkward when walking, but once you master the boost system it turns into a completely different game, giving you graceful control over your mech suit and letting you zip around stages without ever touching the ground. This in itself is incredibly useful, because *Gunvalkyrie* is swarming with deadly insects and gigantic bosses that need to be taken down as quickly as possible. It's like the videogame equivalent of *Starship Troopers* and is a classic arcade-styled blaster that gives more the more you put into it.

Galactic Protector

Format: Master System
Year: 1988
Publisher: Sega
Developer: In-house

Another Master System game starring *Fantasy Zone*'s Opa Opa. This time, however, it didn't make it outside of Japan, due to it requiring the Paddle Control which was also exclusive to the region. Taking control of Opa Opa, you must circle a planet and protect it from being hit from incoming space debris. It's a fast and frantic game that's built around the rare peripheral.

Confidential Mission

Format: Arcade
Year: 2000
Publisher: Sega
Developer: Hitmaker

Confidential Mission is, in our opinion, one of Sega's most underrated light gun games. Sitting in the shadow of *House Of The Dead* and *Virtua Cop*, its knowingly corny spy theme and variety of stages are what helps to separate it from its more famous peers. Based around a mission to retrieve a stolen satellite, *Confidential Mission*'s levels take you to some varied and amusing locales that feature branching sections, inventive enemy attack waves and quick-time events that test not only your aim but your firing speed. The game later received a really good Dreamcast port that added a sizeable Training Mode to practice aiming, justice shoots and combo-chaining.

Panic!

Format: Mega CD
Year: 1993
Publisher: Sega
Developer: In-house

Surely one of the strangest games ever designed, *Panic!* (aka *Switch!*) finds a boy and his dog on a mission to destroy a virus that is causing all the machines in the world to malfunction – making switches potentially deadly. *Panic!* is basically a trial-and-error point-and-click game where there is no way to determine the outcome of your actions and no real consequence if they're wrong – other than getting to watch an amusing animation. It's an interactive cartoon, a series of scenes where in each you are presented with a choice of buttons and must try to guess the correct one to press to progress to the next scene. Bonkers, but the humour and animations ensure it's always entertaining.

Initial D: Street Stage

Format: PSP
Year: 2006
Publisher: Sega
Developer: Sega AM2

Based on a popular manga series, the Initial D franchise is virtually unheard of outside of Japan, due to Sega not releasing any home console releases in Europe. While it's been released on numerous consoles (typically Sony ones) it's the PSP version that beats the others, and is certainly the one we would recommend. It's an excellent arcade racer, with superb handling and a neat tuning mechanic that revolves around the use of trading cards. Although the game is in Japanese, the Asian version boasts an English manual. It's actually surprisingly pretty easy to understand, regardless, with the language barrier hardly an issue in playing the game; you can simply enjoy one of the best racers to be found on Sony's handheld.

Master Of Darkness

Format: Master System
Year: 1992
Publisher: Sega
Developer: Sims

Seen by many as the Master System's *Castlevania*, this action platformer shares a number of parallels with Konami's revered horror series. You play the role of a psychologist trying to get to bottom of a spate of grisly murders. This investigation takes him to several spooky locations, including a cemetery, castle and a house of wax, and sees him battling vampire bats, zombies and evil spirits. With lovely detailed graphics, bags of atmosphere, and a nice variety of weapons, enemies and bosses, *Master Of Darkness* is a hidden gem in the SMS library as, appearing quite late in its commercial life, few gamers got to experience it.

Ghost Squad

Format: Arcade
Year: 2004
Publisher: Sega
Developer: Sega AM2

Sega was a king of the light gun genre, and anyone who thinks otherwise is clearly wrong, or wouldn't know a good light gun game if it was wearing a neon cat suit and bit them on the eyeball. Sega made the genre theirs by blending character and humour with exhilarating setpieces, and in doing so helped breathe life into the genre. *Ghost Squad* is one of its later offerings to the genre. Cut from a similar cloth as *Virtua Cop* and *Confidential Mission*, the cops and spies give way to a military *Ghost Recon*-esque theme, with players leading a team of special op types. Its mission comprised of three stages that comprised branching segments and mini-objectives (similar to *Confidential Mission*), while the cabinet had a hefty gun that offered various fire types. An arcade follow-up, *Ghost Squad Evolution*, came in 2007. It featured new stages and a gun with even more functionality, now allowing you to actuate hand-to-hand combat attacks and enter Night Vision mode. *Ghost Squad* eventually saw a late home conversion for the Wii (as too did Sega's *Gunblade* series) courtesy of Polygon Magic, it bolstered the game's arcade mode with additional play modes, including four-player support, and a bevy of weapons and amusing costumes to unlock.

OutRun 2019

Format: Mega Drive
Year: 1993
Publisher: Sega
Developer: Sims

The Mega Drive conversion of *OutRun* was mediocre. Its port of *Turbo OutRun* was utterly shambolic. So where do you go for a good *OutRun* fix on the console? Well, we'd recommend *OutRun 2019*. As its title unsubtly implies, this sort-of sequel placed the racing in the (now not so far-flung) future with vehicles capable of reaching silly speeds. The standard forking stages and checkpoint-chasing gameplay remains, but is spread across four different courses. Detailed visuals, a catchy soundtrack, a comfortable difficulty, solid controls and speed make it by far the best *OutRun* games on the Mega Drive, and there's not a pretty blonde girl in sight.

Ninja Gaiden

Format: Game Gear
Year: 1991
Publisher: Sega
Developer: Biox

After acquiring the rights of the *Ninja Gaiden* licence from Tecmo for its machines, Sega put three different games into development, one each for the Master System, Game Gear and Mega Drive. The Mega Drive game never saw release (though roms of the partially finished code are online), but the 8-bit games did – although only the SMS in Europe. Both are worth seeking out, but it's the Game Gear version that we're highlighting here. It's a fast and ferocious side-scrolling action game with some nice level design and presentational touches, including some nicely animated cutscenes. With only a handful of stages, it is a bit on the short side, but there's no doubt that it captures the essence of *Ninja Gaiden* on the portable.

Arabian Fight

Format: Arcade
Year: 1992
Publisher: Sega
Developer: Sega AM2

Sega made a fair amount of scrolling fighters, but this fine effort from 1992 remains one of our favourites. *Arabian Fight* is designed for up to four players and boasts an Arabian theme. There's a straightforward three-button setup, similar to *Golden Axe*, while the four main characters actually play significantly different to each other, offering a fair amount of variety. You fight your way through the gorgeous looking stages that riff off all sorts of traditional Arabian, *One Thousand And One Nights*-esque tales. It makes our list, not only because it's an immensely satisfying brawler, but also because it features stunning scaling effects that made it stand out from many similar games of the time. It's not original by any stretch of the imagination, but its failure to secure a home port will mean that many won't even have heard of it.

Golden Axe: The Revenge Of Death Adder

Format: Arcade
Year: 1992
Publisher: Sega
Developer: In-house

This arcade sequel to Sega's *Golden Axe* is the best in the series. Why? Well it had enhanced visuals, sound and animation, multiplayer support for up to four players, branching stages and an impressive variety of different enemies and magic spells. It also made some slight changes too, the original magic system gets tweaked (you can no longer level up spells) and none of the original three heroes return, with the exception of Gilius who joins the party as an unplayable character. Instead, you got four (more interesting) heroes to lead into battle, comprising a barbarian, giant, elf and a centaurides. Shamefully ignored by Sega since its release, it remains an arcade exclusive, which is why few have played it.

Burning Rangers

Format: Sega Saturn
Year: 1998
Publisher: Sega
Developer: Sonic Team

There are some who would argue that Sega the game developer hit its prime during the last two hardware races it had a horse running in. For a number of reasons the Sega Saturn failed to ape the success of the Mega Drive, but its failure to strike as significant a chord with gamers wasn't down to Sega not trying, as its software library is evidence of. *Burning Rangers* was a very late release for Saturn. Released globally in 1998, the same year the Saturn was discontinued, few bought and experienced it at the time, and as a result it now commands some pretty steep prices. *Burning Rangers* is a third-person action game that stars two rookie firefighters tasked with entering flaming buildings, putting out fires and rescuing survivors. It employs a *Sonic*-style health bar system revolving around crystals, which are not only used to transport people to safety but also act like gold rings in Sonic; if you take a hit without carrying any, then you die. A unique and intense take on the third-person shooter genre, with stunning visuals (it was one of the few 3D games to make use of the Saturn's CPU-hungry transparency effects) and a rousing soundtrack by *NiGHTS Into Dreams*' composers Naofumi Hataya and Tomoko Sasaki, it is a terrific parting gift to the Saturn from Sega. Well worth seeking out.

The Typing Of The Dead

Format: Arcade, DC, PC
Year: 1999
Publisher: Sega
Developer: WOW Entertainment, Smilebit

A game that probably had most of us thinking Sega might have lost the plot, *The Typing Of The Dead* poked amusing fun at *House Of The Dead 2* by having players blow away zombies by typing words and phrases as they appeared on the screen. What can inarguably be described as the best zombie edutainment game starring of all time, *The Typing Of The Dead* debuted in arcades but later received ports to Dreamcast and PC. Naturally best played with the console's keyboard peripheral, and only released in Japan and North America, meant that few have experienced this quirky and humorous mod, which also spawned a Japan-only sequel.

A.B. Cop

Format: Arcade
Year: 1989
Publisher: Sega
Developer: In-house

If you ever wondered what a *Hang-On* and *Chase H.Q.* petrol-headed baby would look like then you can stop imagining. This relatively obscure arcade release sees you play the role of a futuristic police officer tasked with pursuing fleeing alien criminals before the time expires. With fast, frantic gameplay and some attractive super scaling visuals, *A.B. Cop* isn't the deepest videogame on this list, but in terms of serving up some good old fashioned throwaway Sega arcade fun, it certainly delivers.

Segagaga

Format: Dreamcast
Year: 2001
Publisher: Sega
Developer: Hitmaker

There aren't many videogame companies that will readily poke fun of themselves in order to make a videogame. Thank goodness then that Sega was fair game when it allowed Tez Okano to come up with this nutty tribute to all things Sega. The core plot of *Segagaga* sees the popular studio in drastic trouble due to the Dreamcast being a commercial failure. Sega only has 3% of the gaming market left and must take control back from the evil DOGMA and stop it from seizing the entire videogame market share. This is achieved by pulling random kids off the street in the hope that they'll be able to do a better job than Sega. Needless to say, you end up playing as one of those kids. *Segagaga* is a weird hodgepodge of different genres ranging from simulation to shoot-'em-up, but it's predominantly a RPG. There's a huge amount of Japanese text, making the game extremely hard going if you're not fluent, but you'll want to persevere with it because so much has been lovingly crammed into it. One moment you'll be working alongside a demoted Alex Kidd, the next you'll be battling caricatures of popular Sega developers, or getting a ride off Sonic the Hedgehog. It all finishes off with you blasting off into space in a prototype R-720 and shooting down all of Sega's previous consoles. A brave, impossibly nutty game that really has to be seen to be believed. Even if you don't understand a word of it.

Special thanks to Hardcore Gaming101 for help with images

SEGA GAMES THAT NEVER MADE IT

Ninja Gaiden

Format: Mega Drive
Developer: Sega

We mentioned it on page 70, but Sega actually got fairly far into its cancelled Mega Drive *Ninja Gaiden* game, to the extent that there is working rom dump of it online. Playing more like the original arcade game than the NES platformer series, it's a straight fisticuff brawler. The music and enemy AI is a bit off, but it's still an interesting curio.

Sonic's Edusoft

Format: Master System
Developer: Tiertex

During the 8-bit era, edutainment games were pretty prevalent. Nintendo carved out a whole series of them for the NES, and this is one of Sonic and Sega's lesser known contributions. Developed by Tiertex for the Master System, it sees Sonic competing against cartoon animals in literacy and numeracy challenges to earn stars to get through an overworld map.

Flash Point

Format: Mega Drive
Developer: Sega

Perhaps the *Tetris* licensing saga (Nintendo blocked sales of *Sega Tetris* as it held the home console rights) was why Sega chose not to release the port of this *Tetris*-alike, which sees players trying to clear block arrangements. *Flash Point* saw eventual release on the *Sega Ages 2500 Series Vol. 28: Tetris Collection*, joined by Sega/Sanritsu's *Tetris* and 1989 arcade game *Bloxeed*.

Sonic Crackers

Format: Mega Drive
Developer: Sega

Well in a way this *Sonic* prototype for the Mega Drive did sort of make it to shops. Its core gameplay mechanic, which sees Sonic and Tails chained together by rings, as well as two of its four levels formed the basis for *Knuckles' Chaotix* on the 32X. And the other two stages, which are isometric in perspective, are believed to have formed the basis of *Sonic 3D*.

THE HOUSE OF THE DEAD 2

MAKING THE UNDEAD JUST PLAIN DEAD

» **PUBLISHER** SEGA
» **RELEASED:** 1999
» **GENRE:** RAIL SHOOTER
» **FEATURED HARDWARE:** DREAMCAST
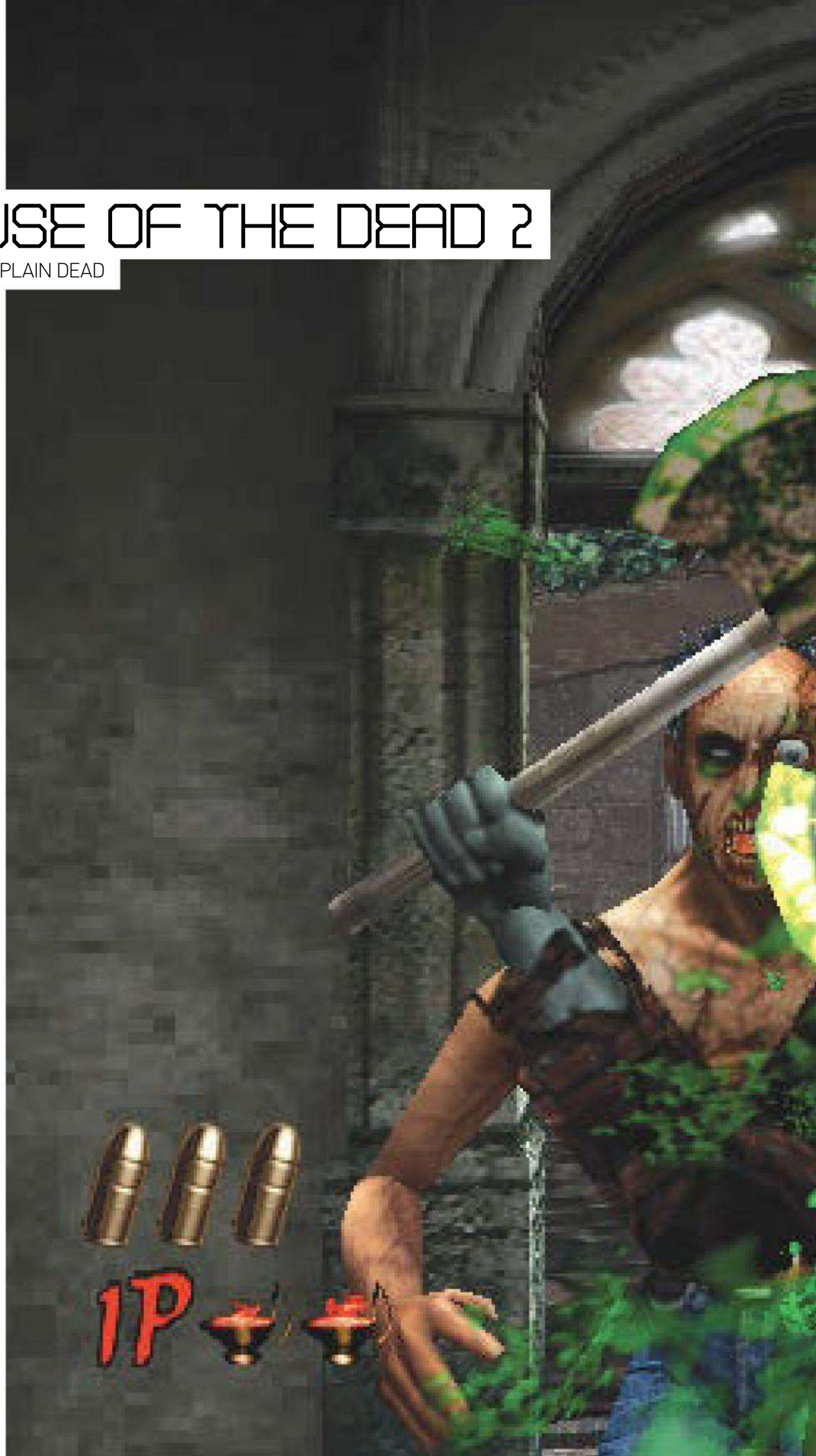» **EXPECT TO PAY:** A FEW QUID

HISTORY

Ever since an encounter with an age-inappropriate zombie film at a childhood Halloween party, we've held a particular fear of shambling corpses. If we're ever caught in an undead uprising, we'll probably waste our precious supply of ammunition within minutes. Luckily, bullets are unlimited in *The House Of The Dead 2*. **There's a certain rhythm to the gameplay – one, two, three, four, five, six, reload. You probably didn't read that as quickly as you'd actually do it, because this is one of the most frantic lightgun games ever made. Those zombies are relentless.**

What was great about playing *The House Of The Dead 2* on the Dreamcast, was that for the first time ever the full terror of the arcade experience was available in your own home. The Saturn had struggled with the first game, making it look roughly like a jolly stroll through a haunted house made of LEGO. The Dreamcast had almost exactly the same hardware as the NAOMI board that powered the arcade game, and every gruesome detail came home intact – the loose eyeballs, the holes blasted in rotting flesh, and even the B-movie voice acting.

Oh, and it doesn't hurt that it's arguably the best game in the series. The boss battles are intense, particularly the multi-headed attack of The Tower, and the Venetian style of the world provides for some truly memorable level design. There aren't many gun games on the Dreamcast, but who needs variety when you have a game this good?

SEGA
ARCHIVES

- INSIDE THE HARDWARE
- 20 SEGA GAMES YOU'VE NEVER PLAYED
- THE HISTORY OF SONIC THE HEDGEHOG

180
PAGES OF
CLASSIC
GAMING